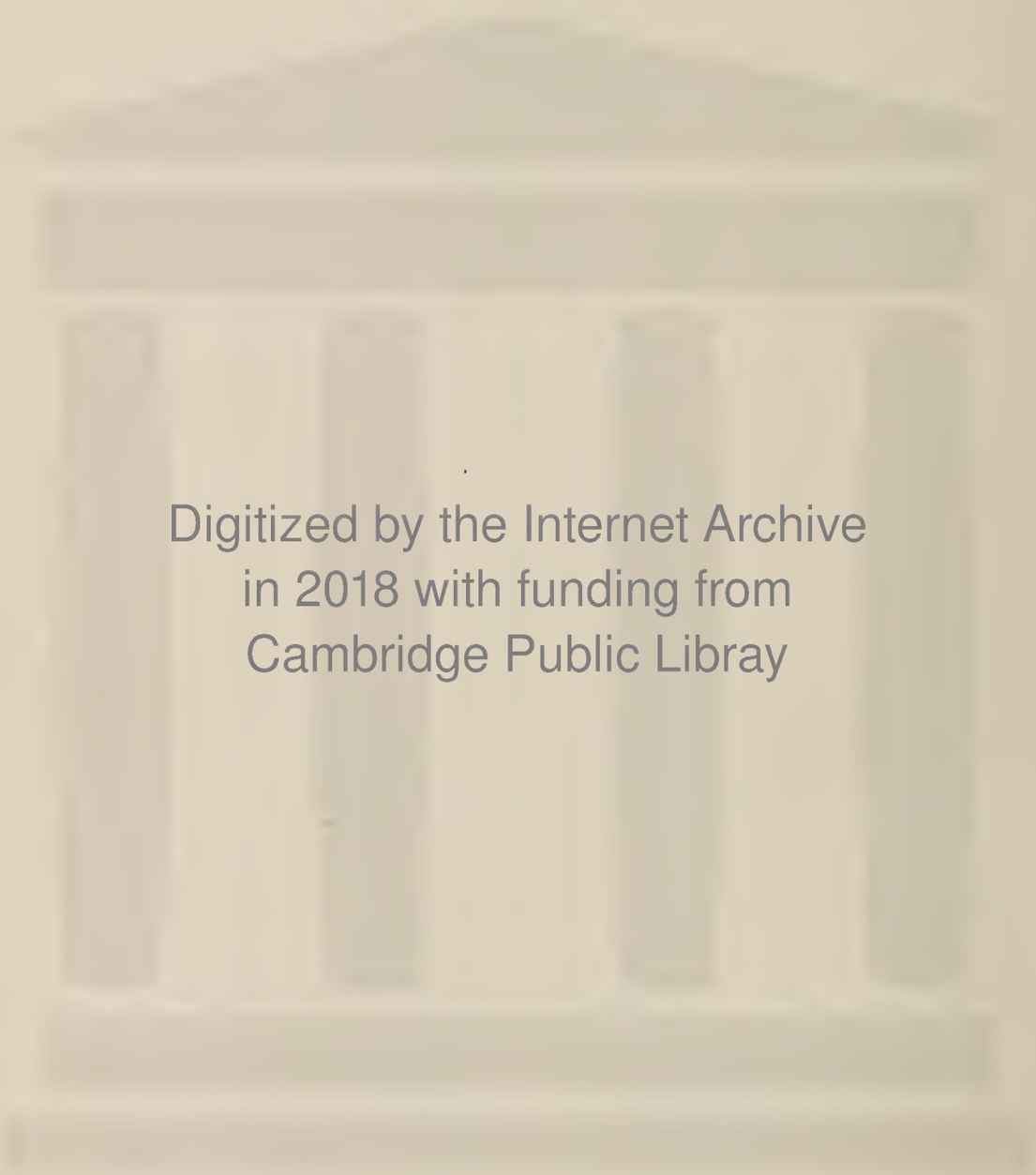

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HON. J. EDWARD BARRY
Mayor of Cambridge, Massachusetts
1911-12

City of Cambridge

Massachusetts

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THE MAYOR'S ADDRESS

AT THE

ORGANIZATION OF THE CITY GOVERNMENT

April 3, 1911

AND

THE ANNUAL REPORTS

MADE TO THE CITY COUNCIL

FOR THE

Year Ending March 31, 1911

PUBLISHED BY THE ORDER OF THE CITY COUNCIL
UNDER THE DIRECTION OF THE
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INAUGURAL ADDRESS

OF

HON. J. EDWARD BARRY

APRIL 3, 1911

GENTLEMEN OF THE CITY COUNCIL:—

I am deeply grateful to the voters of Cambridge for the distinguished honor which they have conferred upon me by electing me to the high office of Mayor, but the highest inspiration of my gratitude is the opportunity given you and me for honest, faithful and unselfish public service.

It is the fashion nowadays to decry political activity and to call the worker in governmental affairs a politician. To make a small city a large city; to make a good city a better city, is an aim worthy of the noblest citizen. The only true aim of government is the happiness of those governed, and I have never been able to conceive a higher aim for human service and sincerely hope that age or weakness may never change my view.

Cambridge has had many distinguished mayors and other public servants. Their services have helped to build the Cambridge of today. For their accomplishments we are duly appreciative; for what they have failed to achieve our knowledge of our own limitations teaches us forbearance.

I bring to this work no higher attainments than are possessed by many in this community. I received the education which the ordinary boy obtains in Cambridge. My governmental training has been gained through service for my city and, as every other member of this community, I have shared in the enlightening influences peculiar to, and exclusively possessed by, Cambridge.

If my life in this city has taught me anything, it has taught me to have a sincere faith in our form of government—that generous form of government which stands beside the humblest individual to protect him from oppression and to encourage him to make the

most of himself; and which says to the humblest individual that no office within its province is too high for him to occupy, provided that he be worthy.

As we enter upon our duties today we have in mind the achievements of the past, which but serve to show us the tremendous needs of the future. If men are to rise to the highest development, they can be aided to the attainment of that development only by always looking forward, and advancing courageously with high aim.

To help our city to be a city of progress, I dedicate whatever of strength and wisdom I possess, and an enthusiasm and loyalty without limit.

In the brief period of time which has elapsed since my election, I have made as careful an investigation as possible of the various departments of our city, and submit for your consideration and action certain suggestions and recommendations.

FINANCIAL STATEMENT.

	March 31, 1910.	March 31, 1911.
Funded City Debt.....	$7,763,250.00	$8,185,050.00
Sinking Funds.....	1,604,850.79	2,111,262.86
Net City Debt.....	$6,158,399.21	$6,073,787.14
Funded Water Debt.....	$3,751,600.00	$3,247,600.00
Water Sinking Funds.....	1,873,389.83	1,549,716.94
Net Water Debt.....	$1,878,210.17	$1,697,883.06

The last National Census records the interesting and significant fact that Cambridge is now a city of 104,839 people. Under the statutes, all cities above 100,000 population are ranked as cities of the first class and base their expenditures, not upon the preceding year's valuation, but upon the average valuation of the three preceding years. The average net valuation for the years 1908, 1909, and 1910 is $107,147,511.33, which allows $1,285,770.14 for city purposes—of this amount $535,737.56 must be appropriated for the schools.

The borrowing capacity will be about $325,000. City Bonds amounting to $101,000 and Water Bonds of $197,500 will mature during the present financial year.

STREET DEPARTMENT.

In his annual report, the Superintendent of Streets submits several recommendations worthy of careful consideration, among them the matter of the collection and disposal of ashes and light refuse. In view of the fact that there is more or less complaint in the northerly and southerly portions of the city, action should be taken towards caring for the light refuse now dumped there. As a remedy for existing conditions and in order to abate the nuisance in the northerly section, the suggestion has been made that an inexpensive incinerator should be constructed in the Raymond Street Yard. From an investigation which I have made, I believe that the construction of such an incinerator would be ample to serve all reasonable needs in that district, and I recommend that an appropriation of the sum of $5,000 be provided for its installation. I would call attention to the fact that in the City of Somerville a small incinerator has been built at a cost approximating the above amount and that city also makes a contract for the assortment of the light refuse which may be brought to the incinerator in the city teams. The marketable part of the refuse is taken care of by the contracting party and the unmarketable products are cast into the incinerator. For this privilege the City of Somerville receives the sum of $100.00 per month and I am led to believe that a similar arrangement can be made with our city. Should such a plan be feasible, it may readily be seen that the incinerator would not only be self-sustaining but would be productive of revenue, and this result would be achieved in addition to the advantage of the abatement of the nuisance.

Attention is also called to the wretched condition of the sidewalks caused by the removal of dead trees, and these sidewalks should be placed in proper repair.

Many of the gravel sidewalks in our city should be reconstructed with brick or granolithic walks.

It is also suggested to provide for modern methods of dust laying and the substitution of oil for water, which arrangement has been adopted by many of the progressive cities throughout the country.

During the past year the Street Improvement Commission has been studying the question of the paving of Main Street and parts of Massachusetts Avenue and Brattle Street, which have been disturbed by the Boston Elevated Railway in the construction

of the subway. Under the Subway Act provision is made for the Boston Elevated Railway Company to replace the pavements with the old materials as far as possible and leave the streets in the same condition as they existed prior to the construction of the subway. I believe that, in the reconstruction of these streets, durable pavements of the best quality should be laid with a solid concrete base. The matter of the expense will be one for adjustment between the City and the Boston Elevated Railway Company.

The Street Improvement Commission in its report has considered this question thoroughly and the report will be submitted to you at an early date.

PUBLIC BUILDINGS DEPARTMENT.

Under the present ordinances the following buildings are placed under the supervision of the Superintendent of Public Buildings:— the City Hall, Police Stations of the Third and Fourth Districts, the City Buildings in Central and Brattle Squares and the schoolhouses. All of the other buildings owned by the city are under the control of the departments or boards of which they are a part. This situation results in no uniform method of caring for the public buildings of the city. Those under the immediate control of the Public Buildings Department receive more attention, with the result that their needs are placed before the City Council without any regard for those of the other departments, the heads of which are forced to provide for their care out of money appropriated to do the work of their own individual departments. I would recommend that a change in legislation be secured to provide that the work of repairing public buildings be placed under the supervision of the Public Buildings Department.

The past year an appropriation of $36,000.00 was authorized by the City Council for the purpose of remodeling the Central Square City Building and to improve the sanitary condition of the Police Station as well as to permanently repair the fire damage of a few years ago. For divers reasons nothing has been done to carry out these purposes.

Before proceeding with the plan as contemplated I am of the opinion that a more extended study should be made of the condition of all City Buildings, to the end that a definite knowledge may be acquired of the city's needs as a whole, before incurring expense for any one building.

Both the Police and Fire Departments are in need of better

accommodations for headquarters. The Electrical Department is forced to occupy quarters that are a menace to safety, life and property.

The Boston Elevated Railway Company, by building its new car sheds in the rear of the Brattle Square Building with the approach from Mount Auburn Street alongside the rooms occupied by the Third District Court of Eastern Middlesex, has practically forced the abandonment of this building for court uses.

As a solution of this problem and in order that a careful and impartial remedy may be applied, I would suggest that a Commission be appointed consisting of the Superintendent of Public Buildings, a representative of the Cambridge Taxpayers' Association, with a third member to be selected by the President of Harvard University.

This Commission should serve without salary and should have authority to make a full investigation and study of the needs of our public buildings, to prepare the necessary plans and estimates therefor, and to report specific recommendations in connection with the whole subject.

WATER DEPARTMENT.

Our city is again confronted with the ever-recurring problem of providing an adequate future supply of pure water for its citizens.

Feeling that some well defined, thoroughly matured and systematic plan in the future development of the water works should be adopted, the City Council, by request of the Water Board, has appropriated five thousand dollars for the purpose of obtaining an expert study and report on the subject.

Among the matters to be considered are the enlargement of the capacity of Stony Brook reservoir by raising the dam, the utilization of the water in Charles River basin for manufacturing, fire, and street sprinkling purposes, the possibility of constructing another storage basin on Stony Brook watershed if the cost is not prohibitive, and the adoption of a general meter system.

As the Water Board desires expert knowledge and advice on these subjects, it has engaged the services of a consulting engineer who, in connection with the City Engineer and an expert from Harvard University, selected by my predecessor, Mayor Brooks, will study the whole situation and their report will later be transmitted by the Water Board to the City Council for its consideration.

On recommendation of the Water Board, the City Council, dur-

ing the past year has made a revision of the water rate schedule, to take effect on May 1st of this year. This revision will result in a reduction of about $21,000.00 in the receipts, and yet the water works will continue to be more than self-supporting.

PARK DEPARTMENT.

Since the beginning of the work on the Esplanade in 1893, there has been expended up to March 31, 1910, of money raised under Park & Esplanade Loans for the Esplanade proper $1,063,280.22. There is a very great demand for another driving avenue between Boston and Harvard Square, and this demand can be supplied when the Esplanade is finished. All that is necessary is to complete that part of the driveway which now remains uncompleted between Harvard Bridge and Brookline Street and between Magazine Street and River Street. The completion of this work will assist in developing the great area of land lying between the new Cambridge Bridge and River Street and should return to our city an immense revenue in taxes.

We now have on our streets hundreds of dead trees, the removal of which requires a generous appropriation. Last year the Department put in young trees, and I believe that the work of reforestration should be continued.

The Legislature now has before it a bill transferring to the care and control of the Metropolitan Park Commission the parkway along the river bank, and it is my opinion that if our river front is thus transferred to the Metropolitan Board the city should be amply re-imbursed for its expense on the Esplanade. The Commonwealth should, at least, assume our bonded indebtedness, together with the cost of maintenance in the future.

FIRE DEPARTMENT.

The Fire Department has just been re-organized with the idea of a general reduction of the call force. More than two-thirds of the department is now on a permanent basis. This improvement is intended to effect a greater degree of excellence in the practical conduct of this department.

The constant increase of our city in population, manufacturing establishments and homes requires a much more efficient Fire Department than we had in the early days. In order to complete this efficiency, I desire to call your attention to the recommendations of the Chief of the department:—

(1) That two steam fire engines be purchased at once—and with the other apparatus so distributed as to be able to concentrate three engines, a ladder truck and some part of the chemical equipment—either an engine or hose wagon with tanks—at any box on a first alarm, regardless of the grade crossings, except above the North Cambridge Junction.

(2) That the chemical engine now located on Lexington Avenue be replaced by a steam fire engine and that this chemical engine be installed above the North Cambridge Junction tracks for the purpose of having at least one fire apparatus in that section of the city when a train blocks the grade crossing.

(3) That ladder No. 2 on Portland Street be moved to a house below the tracks or else a new ladder purchased for Ladder Company No. 1 and the latter placed below the Grand Junction tracks.

(4) That all apparatus—engines, ladder trucks, hose and chemical engines—be given a thorough test as soon as practicable.

(5) That the permanent force be increased so that each engine company shall have five men available for duty at all times, each ladder company four men besides the driver, the chemical engines to remain as at present.

(6) That all "dead-ends," so-called, ending with fire hydrants located in dangerous manufacturing or tenement localities, be connected immediately so as to give a complete circuit, and that all mains run into manufacturing establishments in the future shall be not less than eight inches in diameter, to accommodate two engines, and there "dead ended" only when the isolated location of the establishment will not warrant the expense of other connections.

SCHOOLS.

Any public school system which is supported by the money of the tax payers is justified only if it gives to the children of citizens an education which will make them more efficient, will enable them to support themselves better and more properly fulfill the duties of citizenship. The public schools are for all the children, whatever their natural capacity, their tastes, their circumstances and their ambitions. We must, therefore, provide for the education of those who are looking forward to college and the professional schools, but we must equally provide for those who expect to enter upon a business career or to enter a trade or to manage a home. Any public

school system which does not provide an education fitted to the needs of all these classes of children must fail to justify its expenditure of public money.

The Cambridge schools have for many years attempted to meet all these needs. They provide physical and manual training in the grammar grades, and for graduates of the grammar schools they provide not merely courses preparatory to college and the normal schools, but also commercial and industrial courses and courses in domestic science. It should be the aim of those in charge of the public school system to make the schools more and more effective in all these directions. The School Committee has just established in the Rindge School an industrial course, open to all boys of fourteen whether graduates of grammar school or not, which is intended to make of those who pursue it, skilled workmen in the various wood working and metal working trades, and in printing. The Committee is now considering the establishment of similar courses for girls in dressmaking and millinery. Such courses properly carried out will tend to make the city a more favorable place for manufacturing, since it will assure to those coming here a constant supply of skilled labor.

The action of the School Board in requiring some manual training for boys in the lower three grammar grades and sewing for all girls in the same grades is calculated to develop in the school children while young a capacity for manual work of all kinds and to develop in every child, whether he will eventually get his living by manual labor or not, a fuller capacity to be a thoroughly capable and useful citizen.

Contracts have been made for the erection of a school house to take the place of the Thorndike, Otis and Lassell buildings. This new school building, when completed, will be one of the largest in the city. It is expected that it will be ready for occupancy early in the next school year. It will contain a hall with a seating capacity of from 800 to 1000 and also a system of baths which will accommodate a very large number. These special facilities will give an excellent opportunity for developing a plan for increased use of school buildings by the people, especially in the evening.

The investment in school buildings and land is considerably over two millions of dollars. As these buildings are in use but five hours a day, five days in the week, and about nine months in the year, I believe that the School Committee, the Mayor and City Council should co-operate in a plan by which a reasonable trial may be given of further use of school buildings for all the people.

There is a strong feeling in this city that many of the school teachers are underpaid, and with this I agree. The salary of the superintendent of schools was this year increased by the School Committee from $3500 to $4000, which makes him the highest salaried official in the city. Unless some extraordinary conditions arise this year, I believe that the salaries of many of the teachers, especially in the lower grades, should be increased.

The following comparative statement shows the number of teachers, average number of pupils, total cost, and cost per pupil, for the last five years:

Year	Number of Teachers	Average No. of Pupils	Total Cost	Cost Per Pupil
1906	455	14,907	$464,529.43	$31.16
1907	460	14,957	488,636.18	32.67
1908	459	15,214	477,286.82	31.37
1909	457	15,465	489,712.68	31.66
1910	456	15,457	492,864.42	31.88

PLAYGROUNDS.

Every real American citizen is keenly sensitive to the truth that the essence of the nation's nobility is to be found not in its conquests on the battlefield nor in its purely intellectual attainments nor in its commercial and industrial supremacy but in the generous spirit of its institutions and its purposes to give every man the opportunity and the encouragement to make the most of himself.

It is this spirit which has substituted for the battlefields of war where force and arms prevail the battlefields of peace where enlightenment and generosity endeavor that man may grow to his full stature.

The conflicts of peace no less than the struggles of war demand all the attributes of manhood—the physical as well as the mental and the moral. Each is indispensable, and the neglect of any one inevitably leads to the decay of the others.

The recognition of this great truth has led the City of Cambridge to establish a Playground Commission. This Commission has made an exhaustive study of the conditions and needs in Cambridge with reference to playgrounds.

It has purchased and contracted for land and has carefully considered the availability of schoolhouse and other municipal lands for playground purposes. The land purchased, or contracted for has an area of approximately 178,335 square feet and represents a

cost of $47,325. It is proposed, by discontinuing streets and using a part of the Thorndike School yard, to add about 60,000 square feet having an assessed value of $4000.

The Commission desires to use further schoolhouse land of about 100,000 square feet having a valuation of $44,000.

The area of what it has termed "old land,"—viz., Cambridge Field, Rindge Field, Captain's Island, the city land at the Mill Pond, Broadway Common and Dana Square, the land in the rear of the Public Library which was given with a distinct provision that it might be so used, and a small portion of Kingsley's Park at the head of Cushing Street—is about 2,416,000 square feet with a valuation of about $499,500.

The total is about as follows:—

	Area	Valuation
Old land	2,416,000	$499,500
New land	388,000	105,500
Total	2,754,000	$605,000

It should be remembered that the valuation of $605,000 represents not at all the money to be expended but simply the valuation of what is proposed to be used for playground purposes and that the actual expenditure for the purchase of land amounts to only $47,325. The balance of the $605,000 represents what the city already possesses.

The Commission has furthermore formulated a comprehensive plan for the development and use of this land. This plan contemplates three types of playgrounds. In the first place, there shall be many small playgrounds well distributed over all the districts for the reason that little children ought not to be obliged to travel too far from home. The schoolhouse land is very well adapted for this type of playground. In the second place, it is necessary to provide larger playgrounds for the boys and young men which shall also be well distributed though not so numerous as the children's grounds. Cambridge Field represents this type. In the third place, there should be recreation parks. These should include the types previously mentioned but in addition should offer opportunity for field days for our schools, for competition in all the well-known forms of sports, and be the city man's field for the observance of local and national celebrations. This third type could be best developed at Captain's Island.

The details of development of these playgrounds are compre-

hensive. Playgrounds are to be enclosed by suitable fences. Enclosures are to be set off within the fields. Halls are to be erected as a protection from the heat of the summer and the cold of the winter. These halls may also be used at night for various forms of recreation for young men and women who are obliged to work during the day and afford a place for dancing under sanitary and moral conditions in place of the unsanitary dance-halls into which our young people are often forced with danger to both health and morals.

Nursery corners are to be fitted out with sand-boxes, wading pools, baby-hammocks and other suitable means of amusement and instruction. Children's departments will contain teeters, merry-go-rounds, swings and slides. Girls' fields are to be set apart for the enjoyment and physical development of the girls.

Baseball diamonds, tennis courts, running tracks, bleachers, skating rinks, coasting inclines and gymnastic apparatus of various kinds are to be provided.

Captain's Island, because of its size, its accessibility, and its situation on the river, offers the best opportunity for the main recreation park of the city of Cambridge. It is therefore necessary to have on this park, not only the usual children's corners, the usual opportunity for girls' play, the activities of our young school athletes, our high school boys, but also features which will offer opportunity for wholesome recreation for the men and women of the city. There shall be something which shall attract parents as well as children. The first development needed is an enclosed athletic field which will best be constructed in the form of a stadium. Inside of this stadium there will be a regular running track, regular athletic field and a football field. On each side of this stadium will be situated a regular diamond, each with bleachers accommodating many hundreds of spectators. At the street side of a harbor will be situated a boat house. There should be an extension of the present bathing facilities. It is proposed to build a large open-air structure, as well as a building suitable for girl gymnastics; also a girls' field properly equipped.

Dividing the diamonds on the main field and backing the stadium, the main recreation building of this park will be situated. It will have a large shelter on each side. A music pavilion will be in the top of the structure and a band concert would readily be enjoyed by all of the people all over the park, and along the river front, and the whole of Captain's Island should be fenced in to offer absolute control of the whole area.

This report of the Playground Commission is a revelation of the possibilities of the development of playgrounds. It is a refreshing and inspiring example of the generous and far-seeing sympathy of busy and matured persons to devote their time, their energies, and their abilities in seeking out and developing the finest methods of helping, not alone their fellows of the present generations but the generations of the future.

Gentlemen of the City Council, I cannot too strongly urge the high importance of your sympathetic consideration of this project and prompt action thereon. While it is possible that your action may not follow exactly its details, its spirit should not be violated. I ask you to remember that there is a false economy as well as a true economy and that false economy frequently results from a lack of appreciation of the relative value of money and human beings.

HOSPITALS.

As it is the purpose of a municipality to secure the welfare and safety of its people by giving them its protection and benefits, it is the duty of the municipality to make proper provision for its sick and injured. The experience of other American cities has emphasized the fact that the best provision for the sick and injured requires the establishment of a City Hospital. To the present time, the city of Cambridge has been forced to depend on the Cambridge Hospital—a private institution, supported by private contributions and controlled by private management. This institution has done much good and undoubtedly will continue to do much good. It deserves and receives the gratitude of all the citizens of Cambridge. It has been strongly urged, however, by many thoughtful and experienced observers of medical and sanitary conditions that no private hospital can relieve the city of its obligation to provide a City Hospital and that present needs demand prompt action by the city at this time. In recognition of this opinion the last City Government appropriated $95,000 for a contagious disease hospital and petitioned the Legislature for authority to contract for a loan of $200,000 outside of the debt limit for a municipal hospital. The Legislature has not yet taken action on this petition. As the amount of money that the city can borrow inside of the debt limit as provided by statute is only about $325,000 and as imperative municipal needs will require most, if not all, of this amount, it is obvious that nothing further can be definitely determined with respect to this question until the Legislature has passed upon the petition now pending.

HEALTH DEPARTMENT.

The people of Cambridge, being ever alert in matters of education, have manifested a disposition to reap the benefits of the laws relating to public health, and the small number of contagious cases reported to the Board of Health, together with the low death rate, furnish evidence of a healthy community. The fact that in 1910 fewer cases of typhoid fever were reported than in any year during the last twenty years may well be attributed in part to the precautionary measures used to prevent it, and indicates that the public at large are co-operating in the prevention of diseases.

Cambridge may well take pride in the fact that careful inquiry shows she is doing more in caring for tuberculosis patients than any city in the Commonwealth, except Boston.

There are now fifty patients at the day camp, and for a long time the average has been between forty and fifty. This work should be encouraged as a means of safe-guarding our citizens against the spread of the great White Plague.

A marked step in the right direction will be made by the building of our new hospital for contagious diseases. This building, when completed, will enable us to take care of more patients at a smaller expense than we are now able to do and check the practice of paying out large sums of money to neighboring cities for the care of our patients.

In spite of the fact that a majority of the people readily comply with the laws relating to public health, it must be noticed that there are many who are careless and thereby bring about a state of affairs which makes more sanitary inspection necessary.

The health of the school children is as important as their education and should be watched over with equal care. The work of the school nurses should therefore be extended by adding to the small force which now has the care of all our school children.

OVERSEERS OF THE POOR.

This department has shown distinct progress within the past few years. The five members who constitute the Board of Overseers are able, conscientious men, men who have broad sympathies and keen discretion as to the merits and needs of the poor. The City Home during the past year cared for an average of one hundred and fifty-one inmates and at the present time one hundred and seventy-one are enjoying its hospitality—the largest in the history

of our city. The cost of maintaining the City Home for the year 1910 was $22,200, or about $2.83 per capita. The receipts from the sale of offal for the year were $15,800, or about 40 per cent. of the total cost of collection, which was $39,500. The Superintendent of the City Home reports that additional space is needed for hospital purposes, but this need will be obviated if the new City Hospital is erected.

POLICE DEPARTMENT.

In proportion to its population and area, Cambridge, with the exception of Boston, has the largest police force in New England, if not in the country.

The department, by an order passed by the Board of Aldermen, March 15, 1911, will consist of one chief, four captains, one chief inspector ranking as captain, eight lieutenants, three inspectors with the rank of lieutenants, twelve sergeants, one hundred and two patrolmen, twenty-two reserve patrolmen, eight drivers of patrol wagons and ambulances, thirteen pensioners and two matrons. The cost of running the department last year was $170,556.75, and owing to the recent establishment of the fourth station in North Cambridge the appropriation this year will have to be increased by between $12,000 and $14,000.

Our citizens are entitled to and expect high-class service from this department. Its efficiency in the last analysis depends upon the men themselves; they are carefully selected and, as individuals, will compare favorably with those of any city in the United States, but strict discipline is necessary for the organized effort of any set of men doing the important work that devolves upon the police. In addition to this every man must scrupulously observe the highest standard of personal conduct for the very nature of his work exposes him, his department, and his city to severe criticism for any deterioration from that standard, and the general excellence of the many is lost sight of in the mistakes of the few. I assume that the members of this department appreciate this and intend to deal with them on that assumption. No man need fear that he will not receive a square deal, but every man must realize that the citizens also must receive a square deal and that violations of duty shall be treated with strict justice.

It would be strange, indeed, if there was not room for improvement in a department as large as this and I expect to have certain

recommendations to take up with the Board of Aldermen in due time.

INDUSTRIAL CAMBRIDGE.

The industrial development of Cambridge is one of the most important duties that confronts its citizens today, and while the city has made some progress in that direction, in reality it has made only a beginning.

To our iron and steel and miscellaneous industries we have lately added the manufacturing of boots and shoes, an industry that ranks first in importance in Massachusetts and second in New England. The new and splendidly-equipped shoe factory located near the Charles River Basin, recently occupied by the John H. Cross Company, and which will ultimately employ about 1500 operatives and have an annual payroll of more than $1,000,000, points to one of many lines of industrial development to which our growing city is susceptible.

There is no good reason why Cambridge should not be made an important center for the manufacture of automobiles and motor-trucks, musical instruments, confectionery, jewelry, furniture, machinery and other products, for it not only has the available sites obtainable at reasonable cost, but offers the advantages of both rail and water transportation, ideal conditions of residence, education, amusement and recreation for working people, and shares in the prestige of Boston itself as a manufacturing, buying and distributing center. Its nearness to the larger city carries with it the added advantage of an always-available supply of skilled and unskilled labor—a factor of primary importance to the average manufacturer.

Altogether, there are few communities in New England that present more inducements, great and small, to the manufacturer or investor, or to those who labor in the factories or workshops. Our city has practically all of the advantages of an industrial center and very few, if any, of the disadvantages.

With all these natural facilities at hand, nothing is needed to develop them to the utmost but a little enthusiasm on the part of our own people and the utilization of some of the modern methods of publicity that are nowadays so indispensable to the success of any large enterprise.

I believe that the city government should take the initiative in this very important matter and authorize the expenditure of a reasonable sum for advertising our city's industrial advantages, and I urge the appointment of a Commission consisting of five members,

to be selected, one from the Citizens' Trade Association, one from the Cambridge Taxpayers' Association, one from the Harvard Square Business Men's Association, one from the Central Labor Union, and one to be chosen from the citizens at large.

There are plenty of precedents for such a policy, both in this country and in Canada, and it would be difficult to discover any valid objections to it. Such a Commission working in the interests of a city like ours could undoubtedly accomplish much in the way of attracting new manufacturing enterprises to our community, not only those already established whose managers are seeking more favorable locations, but others only in the formative stage.

The progressive city of Toronto, Canada, has for several years maintained a publicity bureau, in charge of an Industrial Commission, and the results have been exceedingly satisfactory. The city of Baltimore not only builds and controls its own dock system, issuing municipal bonds therefor, but is also developing large tracts of city-owned land for industrial purposes.

This leads me to a brief consideration of another proposal that is of the utmost importance to the future prosperity of our city along industrial lines. I am firmly convinced that the city should complete at once Commercial Avenue, from First Street to Bridge Street, connecting it with the Charles River dam.

By opening up this important thoroughfare to traffic, a large number of manufacturers will be accommodated and an additional street for teaming, devoid of heavy grades, will be created. There is no question that this improvement will speedily pay for its cost. We must not only do all we can to attract new manufacturing enterprises here, but we should always keep in mind the necessity and duty of doing everything in our power to help those manufacturers who are already established in our city and paying taxes; and in no better and more practical way can we keep faith with such than by speedily completing this Commercial Avenue improvement.

Never in its long and splendid history has the immediate future held out greater promise of increased population, valuation and industrial commercial prestige to Cambridge. Its possibilities are practically unlimited, provided its people will join heartily in the "get together" movement that is now sweeping through New England.

HARVARD UNIVERSITY.

Cambridge owes a deep debt of gratitude to Harvard University for the spirit of co-operation which it has shown our citizens in

placing at the disposal of our youth her playgrounds and athletic fields during the summer season; by offering free tuition for one year to young men of limited resources, matriculating to her Arts Department and finally by tendering our city government the services of her professors engaged in such technical pursuits as might be used to the advantage of any of our departments.

I am firmly convinced that this evidence of the interest which Harvard University has in Cambridge and its residents will meet with the appreciation which it deserves and I, as your chief executive, intend to show my appreciation by opening every avenue possible, particularly to the youth of our city, to avail themselves to the fullest extent of the generosity shown by this distinguished institution of learning.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

I desire to take advantage of this opportunity to extend to the Institute of Technology, now located in Boston, a hearty welcome to our city, should it decide to locate in our midst. Cambridge is known throughout the entire world as a great centre of learning and all our citizens should be proud to have within our borders as a fitting companion to Harvard University the greatest technical school in America and one of the greatest in the world.

Gentlemen of the City Council:—I know that you, with your personal observations and intimate knowledge of our city's conditions and needs, will fill in and vivify the picture I have dimly outlined and partially suggested, and I have absolute confidence that you will transmute the words and thoughts of today into actions worthy of our city and of ourselves and generously helpful to all of our citizens.

Our fellow citizens have given us their trust and, in a measure, have confided to us not only their interests but the interests of their children and of their children's children. A more solemn obligation to fulfill this trust by earnest effort and faithful work is inconceivable to men of generous instincts and mature judgment, and I know that I but give expression to your most solemn thought when I say that we approach the performance of our obligations with reverence and faith that guidance from on High will be given us to perform our duties commensurate with their great importance.

ANNUAL REPORTS

City of Cambridge

Massachusetts

ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

AND THE

SUPERINTENDENT OF SCHOOLS

1910

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SCHOOL COMMITTEE

1910–1911

Professor Joseph H. Beale, LL. D., *President*

*Professor Joseph H. Beale, 29 Chauncy Street
Mr. Fred A. McMenimen, 100 Winter Street
J. Henry Russell, Esq., 176 Hancock Street
*James B. Vallely, Esq., 9½ Roseland Street
Mrs. Florence Lee Whitman, 23 Everett Street

Sanford B. Hubbard, *Secretary and Agent*

Regular meetings of the School Committee are held on alternate Fridays, at eight o'clock P. M.

SUPERINTENDENT OF SCHOOLS

Office, City Hall

Frank Edson Parlin . . . . . 3 Forest Park

Office Hours

Office open: From 8 o'clock A. M. to 5 o'clock P. M., every week day except Saturday; Saturday, from 8 o'clock A. M. to 12 o'clock M.

Superintendent's hours: Regularly from 4 to 5 o'clock P. M., every school day except Wednesday. Usually from 8.30 to 9.30 o'clock A. M.

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* Elected at large.

REPORT OF THE SCHOOL COMMITTEE

To the Citizens of Cambridge:

During the year 1910-11 the Committee met fifty-one times, besides several meetings in committee of the whole. As no meetings are held in August, this means that on the average the Committee has met oftener than once a week. A large amount of time was given to the consideration of a new draft of the rules of the Committee. Owing to the considerable time elapsed since the last revision, and the fundamental changes in the constitution of the Committee and its work, a new revision was seriously needed. The revision is now substantially complete and may be issued, it is hoped, in a short time.

SCHOOLHOUSES

The Committee, in its last report, called attention to the radical changes needed in the old school buildings to make them safe from fire and satisfactory in lighting and ventilation. These changes were so great in some cases as substantially to amount to rebuilding, and the Committee felt that the expense should not be borne by the school funds; but, in view of the financial condition of the city, it did not seem possible to obtain an appropriation for such changes from the City Council. The Committee accordingly voted to make the most pressing changes in the most dangerous buildings out of the school funds.

In the last report of the Committee attention was called to the condition of the furnaces in the old part of the Webster School and to the fact that the plans for the new building did not provide for a heating plant for the whole building. In spite of the remonstrance of the Committee nothing was done to avoid the danger of fire. Finally, on July 8, the Committee offered to pay out of the school funds the expense of a complete heating plant, together with other changes in the old building which were deemed necessary for its use. The expense of these changes to the Committee was then estimated at $5,500, but they finally cost about $8,400. The building has been completed and has proved to be quite satisfactory. It has relieved the crowding of the Morse and Houghton schools and has enabled us to close the old Riverside building.

The usual repairs were made during the summer and the tinting of the schoolrooms and corridors was completed.

SCHOOL YARDS

The adoption of a system of physical training has made it necessary to pay more attention to the size and condition of our school yards. By co-operation with the Playground Commission it has been possible to make provision for good-sized yards at most of the schools. A few are still without proper yards. The yards are, however, not in good condition; they particularly need grading and fencing. The Committee secured an estimate of the cost of grading several of the yards, but found the expense beyond its means. It is of the utmost importance that these yards be put into condition and used for the physical development of the children. It is hoped that this may be accomplished by some arrangement with the Playground Commission during the next year.

ADMINISTRATION BUILDING

The High and Latin School now occupies two buildings seventy feet apart. The pupils have to pass frequently from one building to the other, and in winter such passage might become dangerous to health. During the past winter the Committee arranged with the Superintendent of Buildings to make a temporary passage way between the buildings by using voting booths; but this expedient was expensive and exceedingly ugly. The Committee desires a permanent connecting wing between the buildings.

The Supervisor of Drawing has for several years desired better accommodations for drawing in the high school building. This year under the new plan of studies in the High and Latin School the number of pupils who elected drawing increased enormously, and the present accommodations became absolutely inadequate. The Committee could see no way of securing better accommodations without great and useless expense, except to put a drawing-room in the upper story of the proposed connecting wing.

Each of the former schools now united in the High and Latin School has a good library which occupies a large room and is cared for by a librarian. The Committee feels that a single library, cared for by one librarian, could do the work as well. Such a library might also contain a reference library of works on education for the use of all teachers throughout the city, and might form a meeting place for

them out-of-school hours. This library, it was thought, should be placed in the connecting wing.

The offices of the Committee in the City Hall have long been inadequate. In three small rooms the executive officers of the Committee have to do their work, the superintendent, supervisors and directors meet teachers, parents and pupils, and the Committee holds its meetings. These rooms are needed for other city uses. Ample accommodations could be had in one floor of the connecting wing, and storage for school supplies could be found in the basement.

At the request of the Committee, the City Council authorized the sale of two unused school lots and appropriated the money realized from the sale (estimated at $14,000) and $5,000 additional, for building a connecting wing two stories high. The architects of the two high school buildings were employed to suggest a plan. Before this work had been completed, however, the need of additional room for drawing became apparent, and it was felt to be necessary to build a three story wing. In working out the artistic problem of connecting a red brick building with a yellow brick building, with different styles of roof and different alignment of sides, it was found necessary to suggest a more expensive form of construction. Plans were finally drawn which were entirely satisfactory to the Committee; but the bids for the construction of the building have proved far greater than the amount available. It is hoped that some means may be found of securing this most desirable improvement.

EVENING USE OF SCHOOL HALLS

Many applications have been made to the Committee for the use of the school halls in the evening. The Committee would be glad to have them constantly used for educational and social purposes; but it has no power to spend the public money except as such power is given by the statutes of the Commonwealth. The money at its disposal can be spent only for the maintenance of the public schools; not for paying for heating, lighting, cleaning and policing halls for other than school purposes. It has therefore been obliged to decline to give the use of the school halls for any purpose not closely connected with the public schools. It is ready to let the halls at cost for any proper public purpose; and did in fact let its halls for rallies before the last city election. If it could obtain a small appropriation for the purpose, it would gladly use school buildings as social centers.

One use which is expressly permitted by the statutes is for evening lectures on educational subjects. By co-operation with the Dowse Institute an interesting experiment was this year tried. The Institute furnished lectures on literary and scientific subjects; the Committee furnished halls and lanterns and distributed tickets for the lectures. In this way six lectures each were given in the Wellington, Webster and Peabody schools. The audiences, at first small, grew larger as the interesting nature of the lectures became known; and the experiment was quite as successful as could have been expected. It is hoped that next year the plan may be repeated.

PHYSICAL EDUCATION

During the year the Committee, upon the recommendation of the Superintendent, decided to introduce an adequate course in physical training in the schools, and appointed Mr. Ernst Hermann as Director of Physical Training. When Mr. Hermann came he found no apparatus for physical training in any primary or grammar school and very little in the high schools. Upon his request the Committee voted to expend $1,450 on play implements and apparatus of various kinds. As this apparatus was distributed to thirty-four schools and was used by over 15,000 pupils, it is obviously not an extravagant expenditure. The Committee believes that such a course in physical education as has been prepared by the director, carried out in adequate school yards, will make the pupils stronger physically and mentally, and less mischievous in school for being given the chance to "let off steam" on the playground.

DRINKING FOUNTAINS

The new law, which prohibits the use of common drinking cups, made it necessary for the Committee to provide the pupils with some other means of drinking. After a careful and painstaking investigation the drinking fountain, which seemed to the committee most practical and economical, was adopted.

FINANCIAL CONDITION

Two years have now passed since the Committee of five took charge of the schools .At that time it found, left by the former Committee, schoolhouses in fairly good repair and a good stock of supplies. At the end of this year, the schoolhouses are in better condition, and the stock of supplies substantially the same. A

merely nominal balance was turned over to the city at the end of each of these years. The funds at the disposal of the Committee represent, therefore, substantially the expenditures during the two years.

During these years several extraordinary expenditures have been made. The equipment for manual training in the grammar schools has cost $2,202.10; the physical training implements, $1,448.27; the drinking fountains, $1,050.60; and the changes in the Webster School, $8,345.80. Some extraordinary expenditures must of course be expected every year; but it is safe to set the unusual expenditures as at least $12,000. This amount, then, we may regard as having been saved in two years out of the money available for the schools. This is not a large margin, out of a total income of $530,000 each year. Nevertheless, the Committee feels it absolutely necessary to raise the salaries of some of the most poorly paid teachers. To expect an educated woman to live in Cambridge, as a teacher ought to live, on $450 or even $600 a year is expecting the impossible. The Committee must find some way of moderately increasing the lowest salaries. They will be helped to some extent by the substantial increase in the amount available for schools next year.

OFFER OF HARVARD UNIVERSITY TO THE CITY

On January 30th, 1911, the Corporation of Harvard University passed several votes which are of great interest to the School Committee and the public school system of the city. These votes are as follows:—

1. The Corporation agrees to give free tuition for their freshman year to all Cambridge boys from the public high schools whose parents cannot afford to pay their expenses in college.
2. Subject to the approval of the Dean of the Summer School, reduced rates are offered to Cambridge teachers in that school.
3. The University athletic fields in Cambridge are offered as playgrounds for the children of Cambridge in the summer, so far as possible.

Dean Ropes of the Summer School has agreed to a reduction for the tuition paid by teachers in the Cambridge schools for courses in the Sum mer School, from twenty dollars to ten dollars per course.

These offers of the University furnish great assistance to the School Committee in its work of educating the children of Cambridge.

A considerable proportion of the boys who enter the high school, and even of those who succeed in graduating from the classical department, have been unable to go to college. This offer will make it possible for every such boy to complete the freshman year at Harvard College, and as any boy of average ability who succeeds in passing through the freshman year may easily earn enough to carry him through the rest of the course, this offer means that no Cambridge boy of average ability need be without a college education if he so desires.

The accommodation given our poorly paid teachers by the provision for a reduction of the tuition fee in the Summer School should enable many of them to take advantage of the great opportunities for study afforded them by the school.

The thanks of the Committee as well as of the citizens of Cambridge generally are due to Harvard University for its generous offer.

In School Committee,
Cambridge, May 15, 1911.

Ordered, That the report of the President of the Board be adopted as the annual report of the School Committee for 1910–1911, and that the secretary be authorized to append the names of the members of the Committee thereto.

JOSEPH H. BEALE,
FRED A. McMENIMEN,
J. HENRY RUSSELL,
JAMES B. VALLELY,
FLORENCE LEE WHITMAN,

Members of the School Committee for 1910–1911.

REPORT OF THE SUPERINTENDENT

To the School Committee of the City of Cambridge:

Herewith I submit my second annual report, which is the forty-third in the series of annual reports by the Superintendent and the seventy-first of the printed reports of the School Board of Cambridge.

THE CONDITIONS OF PROGRESS

The development and maintenance of a school system at its maximum efficiency depend chiefly upon three things—the policy of the School Committee, the availability of necessary funds and the competency of the teaching force.

The policy of the School Board is of prime importance because it so largely controls the other two factors. If it be broad-minded, far-sighted, and devoted to the welfare of the children, the potential benefits of the funds and of the teaching force may be fully realized, but, if it be otherwise, no funds will be found adequate and no corps of teachers able to secure to the community more than meager and unsatisfactory returns. When the School Board works unitedly in the service of the whole community, when it feels its responsibility rather than its power, when it has neither friends to favor nor enemies to punish at public expense, and when it puts its best intelligence and conscience into its work, then the interests of the pupils are secure, the funds are wisely expended, and the schools are sure to improve. The spirit of the central authority will soon pervade the whole department. The policy of the Board is apt to fix the prevailing aims and standards of all the rest. If it be sound and vigorous, the current of life begins to quicken in well-ordered channels throughout the system; if firm and steady, waste and confusion give way to profitable and systematic work; if just and fair, merit and efficient service become confident of due recognition. For the schools under its charge, the Board defines the meaning of public education, determines what opportunities shall be offered, and where the emphasis shall be placed. It decides whether the accommodations shall be adequate and the equipment appropriate, whether the courses shall be adapted to the demands of practical life and the teachers qualified to meet the needs of the children. The welfare of thousands is in its hands

and depends upon the wisdom and integrity with which it discharges its great responsibility.

But much depends upon the amount of money available for school purposes. With limited funds expenses must also be limited, and soon a choice between things desirable becomes necessary. Bills cannot be paid by voting to contract them. Obligations should not be assumed until the money required to meet them is in sight. The question of increasing salaries, of forming new classes, of adding new departments, or of doing anything else, is usually not one of desirability but of finance. The constant problem is to select the best of many good things, and to reduce expenses for less important matters in order to increase them for more important ones. Nearly every proposal for a "new departure" in the schools must be referred to the budget, because, unfortunately, it often vetoes perfectly valid demands for better buildings, more healthy conditions, stronger teachers and for broader and more thorough training, and its veto stands. The School Board may fully appreciate the needs and be even anxious to meet them, and yet be entirely unable to do so from lack of means.

The third important factor involved in the development of an efficient school system is the ability of the teaching force. If there were enough first-class teachers to be had and there were ample funds to pay them, this factor would require much less consideration. But these conditions are contrary to the facts. A school system, like any other organism, should take in new matter only as fast as it can digest and assimiliate it; otherwise, it will become surfeited and disordered, thus not only losing all benefit but actually becoming less efficient. The organization must be adapted and the teachers prepared for the required work. Then the changes must not come so fast as to confuse and discourage either teachers or pupils. The conditions must be right before even good things are desirable. Sometimes intelligent and well-meaning persons, who know little of the practical side of the work, urge upon the schools things excellent in themselves, but which are useless or harmful under unfavorable conditions. It is much easier to evolve a satisfactory theory of education than to work it out satisfactorily in practice. It is comparatively easy to decide upon a desirable product, but it is much more difficult to secure the chosen results with all sorts of machines and all kinds of raw materials. Occasionally the schools have to be protected from their friends.

The attitude of the teachers toward improvement is a very important matter, and the success or failure of most educational plans

is largely due to them. Teachers, like other members of the community, may be divided into three classes—the conservative, the progressive and the radical. The conservatives have undue regard for age and long practice. "It always has been so" is their chief argument. They rarely see any need of changes and, if innovations are suggested, predict that disastrous results must necessarily follow. When changes come, they usually assume a critical, if not a hostile, attitude toward them. This static condition of mind indicates either that growth has ceased and stagnation begun, or that the teacher has some personal interest in the existing arrangement. Generally, these teachers are among the least competent and the least energetic. They are apt to complain of unfair assignments of duty or of overwork. A close examination of their conduct and remarks tends to justify the suspicion that they judge the merits of all propositions from a personal rather than from a professional standpoint—by the probable effect upon themselves rather than by the effect upon their pupils and upon the system as a whole. They like old ruts and a slow pace. Apparently they think more of their personal ease and comfort than of the educational welfare of the children. They lack life, magnetism and imagination, and, as might be expected, are least successful in awakening, inspiring and controlling the young. They prefer to reduce the methods of education to a mechanical process, the results of which can be measured by percentages. Old habits have much to do with their attitude, but temperament, lack of professional spirit and of real interest in teaching have much more to do with it. It is not a question of age, for some of the most progressive are among the old teachers, while some of the most discouraging cases are found among the younger ones. Too many seem to have taken up teaching because they thought it easy and convenient rather than because they liked it or were naturally adapted to it. Fortunately, there are comparatively few such conservatives as I have described, in the schools of Cambridge.

A large per cent of our teachers are intellectually and professionally progressive. They are alive and their heart is in their work. They welcome any change which gives reasonable promise of improvement and accept cheerfully the duties assigned them. They are thoroughly interested in their pupils and are willing to make large personal sacrifice for their good. Growing themselves, they appreciate the constant need of adjusting the work of the schools to the ever-changing demands of the world outside. They allow no habits to hamper them and measure both old methods and new by

the same standard—that of merit as proved by results. They are willing to prove all things and to hold fast to that which is good. The professional spirit of this large body of teachers deserves high commendation. Their constant study for self-improvement, their cheerful and inspiring influence and their loyal cooperation are a sure guaranty of satisfactory effort on their part and of satisfactory response on the part of their pupils.

The teachers of the third class, although few in number, are, nevertheless, represented in every corps. They are like the old Athenians who spent their time in nothing else, but either to tell or to hear some new thing. The radicals are as intolerant of present conditions as the conservatives are of changes. They welcome enthusiastically but thoughtlessly every novelty, and the more spectacular it is and the farther removed from the usual practice the more strongly it appeals to them. The fact is, they are emotional and superficial, being guided more by feeling than by thought, eager to try new experiments but apathetic in the routine of regular work. They teach the new lesson much better than they drill upon the old. Left to themselves the course of study would soon be reduced to an ever-changing series of fads and fancies. They fail to discriminate in educational values and to grasp fundamental principles, and, therefore, often attribute their poor results to causes outside of themselves—poor text-books, stupid children, defective courses, or lack of supervision. Generally they have the redeeming qualities of health, energy and cheerfulness, but these need to be combined with knowledge, judgment and staying power to yield their full value in the schoolroom. Under constant guidance these teachers may do good work, but not otherwise.

There is another factor, which often enters largely, although indirectly, into the problem of developing a school system, and that is public opinion. Sooner or later, however, the Board will reflect the public opinion of the community which it serves. No school policy can long continue either to lag behind or to advance beyond the approval of the majority of the people. But public opinion will almost invariably support a really progressive policy or any reasonable experiment made in the interest of the children, as soon as it is fully informed in regard to them. There is no doubt that the people want good schools which are up-to-date, businesslike and efficient, and which are administered with economy and without favoritism.

In Memoriam

JOHN WESLEY FREESE

John Wesley Freese was born in Eaton, now Madison, N. H., June 26, 1840. He attended the East Maine Conference Seminary for five terms, finished his preparation for college under the tuition of Rev. Wellington Cross of Bangor, Maine, entered Tufts College in the spring of 1865 and graduated with the class of 1868. For twenty years he taught in the schools of Lagrange, Stockton and Orland, Maine, and of Lynn, Mass. At Lynn he served eleven years, first as master of the Parrott School, then of the Ingalls School. His last position before coming to Cambridge was as governor of the Friends School at Providence. In 1881 he came to this city as acting master of the old Washington School which stood on Brattle Street. The next year he went to South Boston, but, on October 1, 1883, he returned, having been appointed submaster of the Washington School. In September, 1886, he was made master of that school; in June, 1905, was transferred to the mastership of the Houghton School, and in July, 1910, was made Master Emeritus of that school after the first of September.

On retiring from active service, he moved to his farm in Raynham, Mass., where he died, Wednesday, September 7, 1910.

Mr. Freese's interests were never confined to the schoolroom. He enjoyed nature in all her forms, but was especially fond of the birds and the flowers. He was much interested in local history and wrote Historic Houses and Spots in Cambridge and Nearby Towns. He also compiled a genealogy of the Freese family in New England.

SCHOOL SAVINGS BANK

By law the public schools of this State are required to instruct their pupils in thrift. In practical life thrift applies to the acquisition, saving, investing and expenditure of money, or, reduced to its lowest terms, to earning and expending money. In this country most industrious persons are able to earn a comfortable living, and would be able to provide for old age if they were provident and wise in their expenses. But, unfortunately, many never learn how to save, and few are willing to live within their means. During their youth and the years of plenty they acquire expensive habits living fully up to their income, if not beyond it. If, then, the school can help the children not only to form habits of industry but of self-denial and providence for future needs and benefits, it will teach them a most valuable lesson and one greatly needed. But this lesson cannot be taught effectively through sage advice and academic instruction alone. The teaching must in some way be transmuted into self-denying and provident habits on the part of the pupil, into the habit of foregoing a present for a future good and of saving as well as of earning.

Various methods of teaching thrift are in use in the public schools of the country, but the following plan, which has been unanimously approved by the School Committee, seems to possess unusual merits because it is safe, convenient, educative and according to business practice:—

Deposits of one cent or more are received every Monday at the morning session by the teacher of each class, and the amount of each deposit is entered upon the depositor's school pass-book, which he retains. The money collected by the several teachers, together with the deposit slips filled out by the pupil, and giving the date, amount deposited and name of the depositor, are promptly delivered to the master of the school, who, after making the necessary ledger entries, deposits the money on the same day in the neighboring savings bank, receiving from the bank a pass-book in the name of the school.

When a pupil has deposited the necessary sum to draw interest, the savings bank issues in his name a pass-book, to which all his deposits are transferred from the general pass-book of the school. After that, his deposits during the current quarter are transferred to his savings bank pass-book just before the beginning of the next quarter.

Money may be withdrawn on any Monday, but all withdrawals

must be made through the master of the school, and at the personal request of the parent or guardian of the pupil who withdraws it.

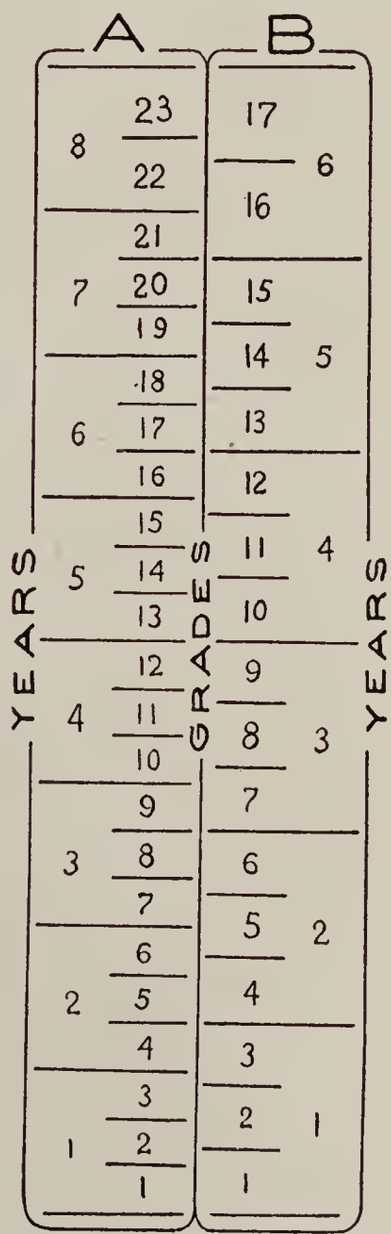
When a depositor graduates or leaves school, he is given either his savings bank-book or the money due him.

At regular periods, the interest received upon the general fund or school pass-book is divided pro rata among the individual depositors of the school, according to the amounts on deposit.

This plan has been used in the public schools of several cities and towns with entire satisfaction to the school authorities and with general popular approval. It will be inaugurated in some of our schools as soon as the necessary equipment is ready.

GRADATION AND PROMOTION

Last year a new plan of gradation and promotion was outlined. The plan as worked out and put into operation during the past year is as follows:—



The accompanying figure will aid in describing and in understanding the scheme. The basal course marked A, covers a period of eight years, the work of each year except the last being divided into three grades, or twenty-three grades in all, each grade covering the work of about three months. There is a parallel or supplementary course, marked B, covering the same work in six years. In it there are seventeen grades, the work assigned to each grade being one-third more than to each grade of the basal course. That is, pupils in the supplementary course are expected to do *nearly* as much in six months as those in the basal course do in nine; or, stated from the other side, pupils in the basal course are required to do only two-thirds as much work in a given time as those in the supplementary course. In each course there are three promotions a year, except the last. This modification in the last year is due to the fact that pupils are admitted to the high schools only twice a year, and that the last five months in the grammar schools are devoted

largely to a thorough review of the essentials of the elementary school subjects.

According to this plan, if a pupil fails to do the work of his grade satisfactorily, he is required to repeat for only three months, at the end of which time he has another chance for promotion. If he is in the supplementary course and fails to keep up, he may be transferred to the basal course with a maximum loss of only two months. Once each year the transfer may be made with the loss of only one month, and once each year without any loss of time whatever. Pupils in the basal course who are able to do more work than is required of them there, may be transferred to the supplementary course at any time by repeating at most two months' work. Beginning with the third grade, the transfer may be made at the end of every fourth grade by reviewing the work of one month, and, at the end of every fourth grade, the transfer can be made without any review. Thus it is possible by passing from one course to the other to vary the rate of progress, to meet a great variety of needs and to do it without omitting any subject and without loss of time. The shortness of the grades and the frequency of promotions greatly improve attendance and stimulate effort. As one principal has put it, "It is an effective scheme for the elimination of the lazy." The period of review for those who fail to be promoted is not long enough to dishearten the pupils, or drive them out of school. In three months there is always another chance. This seems to them and to their parents quite different from a year, and so they go to work with new determination and increased effort. Moreover, the reviews always come at the end of short periods, before the pupils have lost the impressions received from their first study of the subjects. The second impression is made before the first is obliterated, either by the length of time or by a change of subject matter.

The feature of this plan which is likely to impress many unfavorably at first, is the assignment of more than one grade to a room, except in large buildings. But further consideration will reveal some compensating advantages. Generally, teachers occupy too much of the time and attention of their pupils, giving the children too little time for study and the preparation of their work. There is so much teaching that the children do not learn how to study, so much explanation and help that they do not acquire independence and the power to master difficulties alone. After the teaching, assistance should be given only in individual cases, not to the whole class. If the whole class needs it, either the teaching has been in-

efficient or the work is too hard. There is also too much lesson-hearing or recitation and too little lesson-preparing. Usually, more time is given to recitation than to preparation, a practice that can hardly be defended by any sound reasoning. Pupils should be taught how to prepare their lessons—how to use books, where to find the information desired, how to pick out the essential matter and how to arrange it in orderly form. When there are two or more grades in a room, the upper grades learn much in review from the lowers ones, while the lower grades in turn learn much from those in advance.

Under this plan children are admitted to the first grade at any time during the year, provided they are at least six years of age, and there is an outlet into the high school twice a year for those who have completed the course. It closes up the break between the grammar and high schools, and allows pupils to pass uninterruptedly from one to the other as soon as prepared, just as they have passed from grade to grade in the elementary schools.

The practical application of the plan has already brought out some interesting facts. First, that many children are able to advance in their school work much faster than is generally believed, and this, too, without any overpressure whatever. In fact, these children are much more interested and happy when allowed to work at their natural speed and capacity. They chafe and become discontented when held back to the pace of their slower classmates. Second, the awakening and stimulating effect upon the naturally slow and indifferent child has been very apparent. Third, by sending the prepared pupils of the upper class to the high school in February, the teacher of this class has about six weeks for careful individual work with the remainder and slower portion of the class before other pupils are promoted in March. Fourth, by fixing the entrance age at six years and by admitting pupils on any day of the school year, great waste, to say nothing of the injury to the children in trying to get immature pupils to do work which they cannot understand and for which they are entirely unprepared, is avoided, and a very helpful nucleus, accustomed to school work and unconsciously serving as guides to the newcomers, is always present in each class. The teacher is never overwhelmed with forty or fifty beginners, untamed and totally ignorant of what is expected of them. Here, again, much time and energy are saved.

KINDERGARTENS

It may well be questioned whether the present organization and arrangement of the kindergartens is either best for the children or makes the best use of the kindergartner's time. In raising the question no criticism of the kindergartners is intended, for their work has been largely laid out for them and has not been of their own choosing.

The afternoons have, under the rules of the Board, been assigned to the kindergartners for visiting the homes of the district. This is far too much time to be devoted to that purpose. It seems better to have a morning and an afternoon class and in many cases to reduce the number of children present at one time. This would provide for more children than can now be accommodated. So far as the kindergartners are concerned, there is no reason why they cannot take charge of one group of children in the morning and another in the afternoon. Their work is neither more difficult nor more wearing than that of the grade teachers.

The work of the kindergarten should also be modified so that most of it can be done out of doors. It would take a little time and some careful thought to develop the work of the out-of-door kindergarten, but it can be done and done satisfactorily.

The children are kept too much in the house, sitting and doing things useless, if not harmful, to them. In pleasant weather, at least, children from four to six years of age should spend most of the day in the open air and sunshine, exercising their senses and muscles in a perfectly normal way. To see the works of nature and the ways of men as they really are, and to play the natural, real plays of children, are what these little people most need.

Your attention is called to the report of the Supervisor of Primary Schools and Kindergartens, which follows:—

"During the past year much that is new has entered the school program; and the untried has been attempted with an unfailing faith and cheerfulness on the part of the teachers that deserved and insured success.

"One of the good effects of the new grading in the primary schools was experienced when the first promotion permitted third year pupils, who were not ready to be sent to the grammar schools last June, to make up their deficiencies and enter in December. These children were glad to avail themselves of the opportunity and were encouraged to do so by their parents. They worked eagerly, and the

attendance was excellent. Out of one thousand seven hundred sixteen children in the third year grades, two hundred twenty-two were received into the grammar schools in December. Many of these children gained two terms in the work of the third year.

"The next group, encouraged by the success of the few, worked to be prepared for the spring promotion. Of these, four hundred forty-two entered the grammar schools in March,—thus gaining one-third of a school year. Of the class left for promotion next June, several are children who came from the second year grades last December.

"The frequent promotions appeal strongly to the imaginations of the children. The impression made is that advancement depends upon personal effort; and there is an added sense of responsibility that results in good attendance and faithful work.

"With the exception of a very few special cases, all the children connected with the primary schools since last September, have been advanced one grade, the majority of them two grades, and a number have already completed a year's work. The gradual decrease in numbers in the primary classes will be a great advantage this coming term.

"There has been a more systematic teaching of phonics and the children are making a more practical use of them; consequently the reading has gained in fluency the past year, and, with the help of the new books, it has broadened in interest and information. The classes are stronger in oral language; the spelling, as shown by recent written tests, is much improved.

"All the grades are showing the greatest interest in the lessons in history and local geography. Excursions made by a few classes to nearby places were much enjoyed and showed encouraging results.

"The one session plan in the first year grades has proved an unqualified success. The little children were promoted as well as ever last June, and this year will show even better results. All that is needed to perfect the plan is playgrounds for the young children when not in class and for all the grades at recess.

"There has been little change in the daily program of work in the kindergartens this year; but the time given to gifts and occupations has been shortened, and the number of periods for physical exercise has been increased. Besides the games, there is one out-of-door period for each session and at least one excursion each week. Folk dances have been introduced into all the kindergartens, and are much enjoyed by the children. It has become necessary to simplify the

Froebel games as well as the work at the tables because of the shortened periods; but the children have accomplished as much as usual, for, being several months older, they are more self-helpful than before. Both teachers and children are looking forward hopefully to the larger playground and the little garden plot.

"The mothers show a keen interest in the monthly meetings, especially such as give them helpful information. Forty of the busy mothers assembled in one of our smaller kindergartens recently to listen to the Director of the Cambridge Trade School for Girls.

"The teachers are devoted to the welfare of the kindergarten community, and foster the friendly relations between the home and the school by frequent visits to their pupils."

THE HIGH AND LATIN SCHOOL

On the first day of September the English High School and the Latin School were united under the above name and have since, officially and in every other respect, constituted but one school. The anticipated benefits of the union are being realized, and no disadvantages have so far appeared. It would be difficult to find a school better organized or more efficiently managed. The spirit and industry of the school are good, the relations of teachers and pupils are cordial, and the whole institution has a pleasant and businesslike appearance. Although one hundred eighty-five new pupils entered in February, there was no confusion nor interruption of work. The newcomers soon found their places, began to feel at home, and became interested and happy in their new duties. This was the first class to be admitted at the middle of the year under the new plan of promotion. The plan has worked satisfactorily so far as the school is concerned and has called forth strong approval from many parents.

In order for the school to meet fully the needs of the community, a thorough trade course for girls should be offered. From a careful study of the local industries open to women, it seems that a four-years course in dressmaking and millinery is best, as many of the local industries call for unskilled labor only. This course should be on a strictly industrial basis as to hours, subjects and methods of instruction, and should be open to certain girls fourteen years of age or more who have not finished the grammar school course as well as to those who have graduated. About half of the time should be given to shop work, and the academic subjects should be applied directly to the shop experience and to the industrial demands. The work of

each year should be a unit in itself, although an appropriate sequence to what has preceded, so that a girl leaving at the end of any year will have completed some parts of the course and will be prepared to enter a shop and do something well.

For further items of interest relative to this school I refer you to the report of the Head Master whose report follows:—

"I herewith submit a report for the past six months in the High and Latin School. My arrival in Cambridge is so recent that this report will concern itself with certain general phases of school work together with some changes that have been introduced.

"The registration on the first of February was 1,248. The class which entered the sixth of February numbered 185, making a total registration for the year of 1,433. This total is distributed by courses as follows: College Preparatory 527, Scientific 21, General 124, Normal 151, Commercial 549, Domestic Science 61. In each of the six courses the larger part of the work is prescribed, experience having shown that a free elective system is bad for young students. Indeed, colleges are beginning to insist upon election by groups. Few students of high school age can choose their studies wisely. They do, however, know what general line of work chiefly interests them. The prescribed studies in the course selected secure a continuity of effort according to a carefully worked out plan, while the electives make that course somewhat elastic. The boy, for instance, who is fitting himself for a college of liberal arts may elect shorthand and typewriting, or drawing, or, in fact, any study which his time and ability will permit. The college preparatory course is arranged on a four-year basis, as four years seem sufficient for the student of average ability and good health. Occasionally a longer period is demanded because of immaturity, ill health, or some other special reason. The individual need should govern the choice of a course. A student should accomplish each year what he is capable of accomplishing, else his whole moral fibre will suffer. A prolonged period of preparation is too expensive, if it means the pupil has not worked up to his capacity during the time of that preparation. It is of the greatest importance that he should develop his maximum efficiency and acquire the habit of hard work. The school is the student's place of business, its work his prime concern. His out-of-school hours should be devoted either to study, or rest and recreation; and all interested in his welfare should help him carry out this plan. Some, to be sure, can take little time for recreation because compelled to support themselves partly if they go to school. These, however, find their reward in acquiring a strength

which only such struggles can develop. If the pupil could learn to make each hour count, either in work or in renewing his strength for work, he would accomplish much more and appreciate the value of time. The demand on all sides is for efficiency, whether in professional life, in the trades, or in business. Our schools too often fail to develop the maximum of efficiency, too often their graduates have not learned to do anything well, have not learned to work rapidly, have never come to realize at all the joy of work and accomplishment. The school should teach the lessons of real life, in some degree at least, or its pupils will go forth poorly prepared for the struggle before them. The whole atmosphere of the school, then, must be one of earnest work and good fellowship. This is as necessary, if the school is to be a place of interested and interesting life, as a suitable soil is for the proper growth of the plant. While the teachers should be scholarly and efficient instructors, it is even more important that they be sympathetic, enthusiastic co-workers with their pupils.

"More students elect the commercial than any other course and the electives of the pupils of the freshman class show a decided increase in this direction. They choose the commercial line of work because they feel it touches actual life more closely than does any other. Many boys and girls who now drop out of school several years earlier than necessary would continue if they thought it paid. To large numbers of our young people, school work must aim at a definite job at graduation in order to seem worthy of the time it demands. Recently, educators are coming to recognize this fact and to realize that the schools are not closely enough in touch with modern conditions, either socially or industrially. The liberal arts high school, such as the High and Latin School, has a distinct place in our educational system. The greater part of its work must be cultural, but there are certain lines in which the vocational may be combined with the cultural to the great advantage of all concerned. The commercial course should furnish the combination in a way that will give a fairly broad education together with an efficient commercial training. It should never attempt to compete with a commercial college by devoting itself to commercial subjects alone. It should, however, furnish a well-graded course which shall result in efficiency for the student who is faithful and capable. Because this course seems more practical than others, many have chosen it who are utterly unfit for commercial work. This overloading is bad for all concerned, but can be relieved by developing other fields of vocational endeavor. In the High and Latin School, the department of drawing offers great

possibilities. A graduate from the commercial course who has done his work well can be reasonably sure of immediate employment. The relation existing between the commercial work of the school and the local business community should be a close one. The employers of the graduates of the school could aid much by reporting back their criticisms of the product sent them, whether they be good or bad. This school will always welcome any such criticism.

"The admission of pupils to the high school twice a year, together with the promotion twice a year throughout the school, which must eventually follow, will furnish a much-needed elasticity. In any school, large or small, where promotions are made but once a year, the individual student is very often sacrificed. Anything which tends to eliminate such a condition is desirable. Many first year pupils fail in one or more subjects for the first half year. This may be due to a number of causes, but can very often be traced to the difficulty the pupil finds in adjusting himself to new conditions. It may not spell inability at all, but it does bring discouragement at the very beginning of a course. and often such discouragement that the pupil leaves school before his first year is ended. How does the admitting of classes twice a year relieve the situation? To be concrete, a boy entering the High and Latin School last September has failed badly for the first half year in his Latin. He has fallen so far below that he is a dead weight in the class. The teacher cannot entirely neglect him, and yet, in justice to the others, she can give him only a small fraction of the time his condition demands. He has become completely discouraged, or if not discouraged, indifferent, which is worse, and all his other work is seriously affected. With yearly promotions he must continue in that class or drop the subject entirely; if the latter, he will not have enough to do because no new classes are being formed which he may enter. This year such a boy could get a fresh start in his Latin with the class that entered in February. Mistakes of the first half year are very fresh in his mind, and, if he is capable, he may readily overtake his class in time to graduate with it. The opportunity to begin again is offered every six months, rather than once a year. The system seems pedagogically sound, and its success is largely a problem of administration. This problem has been well worked out in other parts of the country and undoubtedly will be in New England.

"High school students are at an age when they demand social organizations of some sort. Many educators have failed to recognize this characteristic as peculiar to the normal adolescent. While

they endeavored to crush those organizations which are harmful in influence, they did nothing to encourage the growth of worthy substitutes. A large part of the difficulty with school fraternities could have been avoided if the students had been offered a more legitimate outlet for this perfectly natural social desire. Encouraging the good discourages the bad, but mere prohibition of the bad will not develop the good. It is axiomatic that any club or society whose influence aids the formation of cliques, the engendering of exclusiveness and a feeling of social superiority has no place in a public school. No organization should be deemed worthy of the school name, if it recognizes anything other than real merit. Organizations whose purpose is to make school life pleasanter and richer can help the school much in every way. When membership in them stands for actual accomplishment and proclaims the member as one of the strong students in school, the whole tone of that school must be elevated. In the various clubs and societies many a student will find himself and come to know what he wishes to do in the world. Language, history, science, debating, athletics, all offer a large field for organization. These organizations must be carefully directed and each student's activities limited so that they shall supplement his other school work, rather than distract attention from it.

"The proper administration of school athletics is one of our difficult problems. The question has generally been handled from the viewpoint of interscholastic contests. Such treatment has magnified too much the importance of the school team as a team. This condition has been chiefly due to the fact that people have failed to realize the importance of a rational system of physical education, a system which shall take the student when he begins his school life and go with him until he has completed it. When this physical side of education is given the attention it deserves, any athletic team representing the school will be the finest product developed by the department of physical education. In the secondary schools, especially, the teams should have expert direction in order that they may play the strenuous games of that age with safety and profit. No greater opportunity is offered for teaching certain ethical lessons than that presented by athletics. Then the boy learns in a tangible way that he must keep his body strong and clean if he would secure its best development, that he must subordinate himself for the sake of the team in many a game; that he must carry victory with modesty, and take defeat without complaining, if he would be a real sportsman. The constantly increasing expense connected with athletics is nulli-

fying much of the good in them. It has tended to put athletics more and more upon a commercial basis, and, to that degree, robbed them of one of their chief reasons for existence. If the player thinks that he must have some material reward after he has worked through a season, he loses the genuine amateur spirit. Such an influence must necessarily weaken the growth of a healthy school spirit and warp the whole notion of loyalty. Games are no better played and the enjoyment of them no keener than in former days when the player was only too glad to have the privilege of buying his own equipment and felt that the honor of representing his school was sufficient reward for anyone. Boys to-day are as honorable and as eager to do the right thing as boys of any former day, but this custom of spending so much money has developed in them a feeling of which they themselves are hardly conscious. In a properly arranged system of physical education, the city will provide the necessary direction in the way of teachers and coaches and the necessary equipment in the way of gymnasium and athletic fields. When this is done, not only will our school teams represent the finest product of the system, but the greater part of the present demand for money will be avoided. The far-reaching plans in physical education upon which Cambridge has recently entered promise much in this direction.

"In closing this report, I wish to make mention of the loyal spirit of the teachers, of the cordial reception by the students and to thank the superintendent for his support."

THE RINDGE MANUAL TRAINING SCHOOL

This school should have a definite place on the school system, and its functions should be entirely distinct from those of the High and Latin School. One should not duplicate the courses of the other, and, although there may be some duplication of subjects such as science, mathematics, history, English and German, those subjects should not have the same content in the two schools—they should differ widely in matter and in emphasis. It does not follow, because each school is confined to a particular field of educational work, that a student is to be limited to the courses of one or the other. On the contrary he may have open to him any course or any subject offered in either school. A boy in the Rindge desiring to take a subject in the High and Latin School may do so by making the necessary arrangements with the head masters of the schools. Thus all the advantages of both schools are open to the students of both schools.

The Rindge is a secondary school for boys, and its aim is to give them such training in the mechanic arts and closely allied subjects as will give them favorable entrance to various industries or will fit them for advanced courses in higher technical institutions. All its courses centre about the shop and all its subjects are applied to the shop or closely related to the industrial world.

Several important changes have been made in this school during the last year. The commercial course has been discontinued. The course in wood-working will be more advanced since elementary training in this subject has been introduced into the grammar grades. A trade course in printing will be offered next year. It will be a four-years course introducing trade conditions and trade methods. About half of the time will be given to shop practice and the academic subjects will be closely applied to the shop work and to the printing industry. Under certain conditions, boys, who are fourteen years of age or over, will be admitted to this course even if they have not graduated from the grammar school.

The organization of a school of this kind is a very important factor in its efficiency, because there are so many places where loss of time and waste of material may creep in. While much freedom must necessarily be allowed, good order, industry and a creditable standard of work should be required of all. There has been steady improvement in these respects during the last two years.

The report of the Head Master of the school follows:—

"The following table shows the total registration of the Rindge Manual Training School for each school year since 1906–1907:—

1906–1907	475
1907–1908	549
1908–1909	603
1909–1910	623
1910–1911	706

"The figures for 1910–11 are made up to February 6, and include six hundred twenty-one who were registered up to February 6 and the new class of eighty-five members who entered upon that date. These figures indicate a steady, substantial growth which has taken place in spite of a continual increase in the quality and amount of work required of the students. The growth of a school of this type in a community like Cambridge, where the mechanical industries do not predominate, and where the academic ideal has always been maintained by the presence of the University, is somewhat remarkable. This growth has, naturally, necessitated increase in facilities,

particularly in the shops, where the number of pupils is limited by the amount of equipment. During the past year one new shop has become available in the basement of the machine shop wing of the administration building. In this shop a course in speed lathe work and iron-fitting is given to members of the junior class. This makes available five shops, each capable of accommodating thirty pupils.

"Another incident of the growth of the past five years has been the development of the free-hand drawing department. During the past year this work has been provided with suitable quarters on the second floor of the administration building, by changing the first year wood-working shop to the basement of the pattern-shop wing. In this way a large, well-lighted room was obtained which was originally intended for drawing purposes. A few years ago only mechanical drawing was taught in the school. Then, as an experiment, one of the teachers of mechanical drawing was allowed to teach some free-hand drawing. The experiment proved so successful that one-half of all the time devoted to drawing was assigned to free-hand work. Courses in design are being developed which are proving effective in improving the general appearance of the articles produced in the shops. In addition, they are opening up the great field of commercial art as another practical application of free-hand drawing. The large quarters provided this year have also made possible the teaching of wood-carving and clay-modelling to the boys possessing sufficient artistic ability to profit by such instruction.

"The buildings occupied by the school are for the most part in excellent physical condition. All schoolrooms have been whitened and tinted within two years, and the buildings are generally in good repair. The most important omission in the schoolrooms is the absence of artificial lighting in the rooms of the Washington building. On certain days during the winter these rooms are so dark that it is impossible to distinguish writing on the blackboards from many parts of the rooms. A good deal has been done during the past year in making the rooms more attractive. A considerable sum of money has been received from the Parents' Association, the graduating class of 1910, the Cantabrigia Club and other sources, with which appropriate pictures have been purchased for many of the rooms. Good friends of the school have also made generous donations. Notable among these latter is an heroic figure of 'Victory' presented by Miss Annie L. Montague and Mr. Charles H. Montague, in memory of their father, the Honorable Samuel L. Montague, who was for many

years chairman of the supervising committee which managed the school for Mr. Rindge.

"In all departments of education there is felt a demand for the readjustment of school work to the needs of the pupil. Not only is this found in the purely vocational work which the schools are beginning to undertake, but it exists no less in English, science, mathematics and other academic branches. It is no longer possible to be satisfied with covering each year a stated number of pages of a given text-book. In English, for example, it is necessary that a definite plan be developed whereby not only satisfactory results in written work may be obtained, but that a taste for good literature may be created. New methods must be devised in order that work in composition may be brought into intimate and vital touch with those subjects which a boy naturally understands and enjoys because he is a boy. Modern writers must be drawn upon to furnish vivid, entertaining and elevating material for reading. Again, in science, we are no longer satisfied to teach only the "properties of matter" to boys living in an age of automobiles, electric motors and flying machines. Shops, power stations and chemical works must be visited that the local industries may be understood and appreciated. Mathematics must be made more and more a means to an end rather than an end in itself. Modern languages can no longer be treated as dry collections of rules, but as the live tongues of living people. In much the same way the work of the shops is drawing closer and closer to the kind and the spirit of work done in real shops. We are no longer contented to make laborious 'exercises' as mere practice for some future usefulness. The exercise must take its place in a finished article of worth and beauty. In a word, everything must be done in a way that gives it usefulness now, in our own day and generation.

"There is probably no one factor in the work of a boys' school which so strongly affects the spirit of the school as its organized athletics. At present, they offer the only form of physical training available for the boys. They are supported entirely by money received by admission to the annual football games played with Somerville on Thanksgiving Day. All bills for supplies, coaching, travelling, etc., are met in this way. If the athletic teams are to continue, and, until something better can be found to take their place, it is desirable that they should continue, proper dressing rooms and baths should be provided for them in a part of the building which can be easily shut off from the rest of the school plant. The present quarters are totally inadequate and even unsanitary. A room in the

basement of the Washington building, originally intended for a girls' toilet room, and now unused, could with a little expense be equipped with a hose shower bath and lockers, to make a satisfactory athletic room. In view of the cheerful acquiesence on the part of the boys to rather stringent scholarship and deportment requirements for eligibility to school teams, and complete faculty supervision of all athletic matters, it would seem desirable that recognition be accorded to this rather limited extent of furnishing a decent place in which dressing and bathing may be possible."

THE WELLINGTON TRAINING SCHOOL

There has been great improvement both in the spirit and in the efficiency of this school during the last year. The average ability of the present class is unusually high.

It is quite evident, from observations in this school and in primary schools generally, that, for any position except that of kindergartner, a two-years course in a kindergarten training school is not as good a preparation as a course in a good normal school. Usually the kindergarten-trained teachers are very weak in their knowledge of the subjects taught in the elementary schools, because they have not reviewed these subjects since leaving the grammar schools. In the normal schools, the students not only thoroughly review these subjects but learn the methods of teaching them. Therefore, only as many kindergarten-trained teachers should be received into this school as are likely to be needed in the kindergartens of the city.

Another qualification, which all candidates for this school should present, is good health. Teaching is too severe a strain upon nerves and vitality to be undertaken by frail and anæmic persons. Moreover, the health of the teacher has a very important relation to the progress, conduct and character of the pupils. Children need the wholesome and inspiring influence of the energy, cheerfulness and healthy appearance of their teacher as well as her instruction, sound judgment and steady control. The schoolroom is no place for an invalid.

The following is the report of the Master of the School:—

"This school was opened in September, 1884, contains all the grades below the high school, including a kindergarten, and differs from the other elementary schools in this respect—all the grades below the eighth year are taught by young teachers. Their work, however, is done under the immediate supervision of a master and

two assistants, who are held responsible for the instruction and management of the school. For several years the seventh year has been taught by a graduate of the training class.

"The object of conducting a school on this plan is to give Cambridge young women who desire to teach, and who have made a special preparation for the work, an opportunity to gain experience under favorable conditions, without prejudice to the interests of the pupils.

"Graduates of the Cambridge High and Latin School, who have also graduated from one of our State normal schools, are preferred candidates for the positions in this school. Other persons of equal preparation may be appointed.

"The required term of service is one year. Teachers are appointed to Class B and remain in this class for five months, or until their work warrants promotion to Class A. Teachers may be excused or dismissed at any time by the superintendent with the approval of the Board. No teacher is considered a graduate of this school until she has worked in Class A five months, at least, and has received the approval of the master and of the superintendent as a qualified teacher.

"The compensation during the period of service in Class B is at the rate of $300 per annum, and in Class A it is at the rate of $400 per annum. No pupil teacher receives a rate of salary higher than that paid to members of Class A during her connection with the school, except those selected to take the seventh year's work. Graduates selected to act as substitutes in any school are paid at the rate of $450 per annum.

"The superintendent is authorized to employ as many substitutes and temporary teachers as may be necessary to take the places of absent teachers. These teachers are usually assigned to the Wellington School, when not otherwise employed, that there may be at this school a sufficient number of teachers to make it practicable for members of the training class to visit other schools.

"The efficiency of the school has been increased through recent changes, the most important of which is an increase in the salaries paid the pupil teachers. It is now sufficient to induce first-class candidates to apply.

"Twenty-two young women have entered the school since January, 1910. Of these, four were graduated from colleges, twelve from normal schools and six from kindergarten normal schools.

"As teachers need to be trained in the right kind of atmosphere, it would seem wise to require that the standard for the elementary

teacher should be graduation from a four-year high school course followed by not less than two years in a normal school, prepared to give the right amount and kind of cultural and professional training in proper proportions.

"The year just closed has been one of the most satisfactory years in the history of the school, due to the fact that the regular work of the various departments has been allowed to flow along naturally without interruptions; also, from the fact that added interest has come with the accomplishment of more efficient work. 'Nothing succeeds like success' is proving the rule, and our desire is that the future of the school may be more helpful and inspiring to young teachers than ever before."

PHYSICAL EDUCATION

The Department of Physical Education was established last June and Mr. Ernst Hermann was elected to take charge of it. To organize a new department and to inaugurate its work satisfactorily requires time, but enough has already been accomplished to convince all who have observed the work that its aims, methods and spirit are quite different from those usually found in the physical exercises of school children, and that the results must be correspondingly better. Mr. Hermann fully understands that a child is a unity and that the education of his body cannot be entirely separated from the education of his mind and moral nature. Physical education is only one phase of the general education of the child, but it is of fundamental importance since all other education is so largely conditioned upon the physical basis. The very interesting report of the Director follows:—

"In making my first report for the Department of Physical Education I beg to acknowledge, first of all, my sincere appreciation of the splendid spirit which I found among masters, teachers and pupils upon my entrance into the public schools of Cambridge. Such readiness and open-heartedness for additional work and duties by masters and teachers is, without doubt, due to the enthusiastic influence of the superintendent in preparing the field for the new department. It has made my work very easy and very pleasant.

"My main object has been first, to improve the sanitary conditions of the schoolrooms and all other parts of the buildings which influence the purity and temperature of the air, and second, to minimize the evil influences upon physical efficiency caused by sedentary

occupations. A growing child's health, or physical efficiency, depends mainly upon muscular exercise, fresh air, sunshine, and wholesome food. If health is interfered with, physical growth will at once suffer and mental efficiency will diminish. Insufficient pure air and too little muscular exercise have a harmful effect upon the physical as well as mental efficiency throughout life, but, if such conditions prevail during the periods of growth, the results are precociousness of mind and body. To keep our school buildings as free from dust as possible, to keep the rooms at all times filled with fresh air of sufficient moisture, we had to resort to open windows. I am pleased to report that pupils and teachers alike have begun to appreciate the increased mental and physical efficiency which always goes with fresh, moist air and a temperature of about 65 degrees Fahrenheit. In order that we may further improve our schoolroom air it will be necessary to get some live steam sprays into our air chambers or air shafts. If this is done, I feel that almost all of our children will form the 'fresh air habit.' One of our most important functions in hygiene education is this development of fresh air habits, especially where a number of people are brought together in one room. If sedentary work makes such practice somewhat difficult on account of needed warmth, it will be best to insist that the children put on special wraps whenever they are sitting still. This would be better than the present practice of putting on too much clothing when physically active, *i.e.*, when going out of the building.

"To make our buildings, however, clean and free from dust three things are necessary. 1. More frequent thorough cleaning. 2. Better accommodations for wiping the feet. 3. Better watering or oiling of surrounding streets and yards.

"There is a noticeable improvement since the new spray is being applied to all rooms before they are swept. A further step in the right direction will be made as soon as the school yards shall have been resurfaced and provided with hose for regular surface watering. A still greater improvement would result if all the streets surrounding the schools could be oiled.

"Of equal importance to fresh air is sufficient muscular exercise for growing children, without which normal growth is impossible. Muscle work has a much larger significance than is ordinarily supposed. In adult life, exercise is mainly needed for physical efficiency, although even at this age, the players get practice in loyalty or sportsmanship, which strengthen character and stimulate mental activity. For adults, however, all exercise generally has only a therapeutic value;

but for children, all muscular activities have the additional and very important office of modifying brain structures. The motor brain is the fundamental structure of the brain, and upon its development depends all future capacity for intellectual training. Motor activities in children are, therefore, of the highest intellectual as well as physical importance.

"For physiological reasons, it is necessary that the child be required to indulge every day in large muscular exercise. This means that he must have the opportunity to exercise, by play or otherwise, in such a manner that heart, lungs, and other vital organs receive sufficient stimulation. Proper child-hygiene demands that no child be physically or mentally overstrained. Prolonged mental or physical application is not possible in children. Sedentary work interferes specially with the efficiency of the body, because the materials needed by its various organs are not supplied in sufficient quantities and because the waste products are not removed fast enough.

"We have instituted both a morning and an afternoon recess, which are taken out of doors whenever the weather and the yard conditions are favorable. To insure activity for every child we are carrying on organized play. Without this, only the most active children would get sufficient exercise, and the teachers would not have the opportunity to study their charges while at play. Although this puts a slightly additional burden upon the teachers, it has proved to be of the greatest physical benefit both to pupils and to teachers. When once thoroughly organized, we shall have children who know how to play vigorously, can play fairly and honestly and are just and loyal. The teachers will know the children's true natures, and the children will better understand their teachers and their efforts in their behalf.

"Because the school yards have not yet been developed, so as to enable us to go into them at all times, and because it will take some time for the people to become used to the fact that rational out-of-door activities are always safe, we have put into practice schoolroom gymnastics and schoolroom plays and games. These are, however, only taken with all windows wide open. The plays and games have done much to make these exercise periods enjoyable for both pupils and teachers. Enough formal gymnastics is taken during each period to insure erect carriage and good posture of the normal child. The first object of such a period must be hygienic. This can only come through the exercise of the large groups of muscles and through plenty

of muscular work, which stimulates heart, circulation and respiration. Formal gymnastics and corrective exercises are also needed whenever children do much sitting. And since sedentary work is so common in the occupations of mankind to-day, some formal exercise will always be necessary. After doing all we can to make the children's work more natural, and therefore less harmful to physical growth, we shall still be obliged to give them some corrective exercises to prevent deformity, increased curves of the spine, forward drooping of the shoulders and a flat chest. We may prevent too much malformation by increasing all-around physical activities and by more frequent recesses, but, as long as much sitting at desks is necessary so long will it be necessary to have some formal gymnastics to prevent deformity of the body.

"Some formal gymnastics are therefore needed at all times during school life, and since man's work is generally sedentary and tends toward a forward flexion of the body, it would seem that all children should learn enough of such formal exercises to enable them by intelligent use through life to keep the body erect. But it is also necessary to develop habits of good posture and habits of rational exercise and recreation. It is for this end that the regular teachers should teach some formal exercises together with the plays and games, because these teachers are best fitted to develop good habits in their pupils. I do not believe that the regular teachers are prepared to teach any forms of exercises outside of what is ordinarily needed by the child. As soon as special exercises are needed only specialists should teach them.

"We have in our schools a large percentage of precocious children. There are many with spinal deviations, many with flat chest and many others with weak muscular development in some part of the body. These children need special attention and special exercises under intelligent direction. Our regular teachers can take care of all the ordinary physical activities and of all the work pertaining to recreation and of the moral issues involved in physical education. The many children who are not up to normal in growth of body and in co-ordinations and in skill, in courage and self-reliance, need the constant and systematic attention of specialists in physical education.

"In order that we may know accurately the physical conditions of all our children and to record the results of physical education, the physical examination already authorized by the School Board will be made in May. This investigation will cover all the physical measurements and the examination of heart, lungs, mouth, nose,

eyes and ears. All these records will be made in convenient form upon cards. The examinations to be of value should be continued annually in May. The weight of every child will be taken and recorded every month. Special notice will be sent to parents or guardians whenever the weight index shows abnormal development.

"The system of plays and games introduced into all our primary and grammar schools is already showing some results. Inter-class and inter-school contests are already being held in a number of schools. This will soon become a regular feature. Many activities of our grammar grades can be held in assembly halls, in school yards and on our playgrounds. The upper grammar boys and the high school boys are, however, greatly in need of special coaching as well as of a properly enclosed and equipped athletic field.

"Our high school athletics are too important a part of education for physical and moral efficiency to be hampered by lack of a home field with proper facilities. Nor is it in the best interest of education that these crowning physical activities of a physical educational system be left to chance instruction. In order to improve the high school sports and athletics, in order to avoid overstraining on the one hand and to secure more general participation on the other, there should be systematic practice of the larger sports and the well-known forms of athletics in the upper grammar grades. For this we need better yard facilities, better athletic fields, and the help of assistant directors.

"If we can develop along these lines, we can take care of all the physiological needs of our school children and can meet the demands which life to-day puts upon the character and citizenship. We have not yet recognized all the important needs of our young children. It must be quite clear to us that the child who enters school to-day, either the kindergarten or the first grade, is not like the child of a few generations ago. Home conditions and city environment are producing children with underdeveloped motor brains. The children of to-day, whether coming from the poorer and smaller homes or from the homes of the well-to-do, do not have the same sense stimulations and the same opportunities of reacting physically upon sense perceptions as the children formerly had, where land and natural facilities for playing existed. Neither fathers, mothers nor children do any more the same things at home and for the home. Home and environment are too small and crowded and unnatural to permit of fundamental child play. Formerly, the children, on entering school, had better developed motor brains upon which to

build intellectual education. Formerly, the very activities of children's play tended not only to fundamental motor activities but also to lay the foundation of good character, which are the power to apply oneself, or attention, and the power to control, or interest. Children to-day are apt to be hothouse flowers, physically and mentally precocious. The physical foundation for present day intellectual education is lacking. If we must take our children earlier and with a less developed motor brain, we should also bring into the early school years that which will develop a capable motor brain. Fundamental motor activities suited to the imaginative plays of early childhood employing fundamental muscles, dealing with home activities and nature work, not only would give us mentally better fitted pupils, but physically more robust and active children. For this we not only need the open air kindergartens but also half-time out-of-door sessions for first and second grades with opportunities for real garden work, real home play and many other forms of manual training."

THE OPEN AIR SCHOOL

The Open Air School is conducted in a dwelling house, remodelled and equipped for the purpose, located on Winsor Street, near Broadway. At the time our last report was written it was expected that this school would open on April 4, 1910, at the beginning of the spring term, but delays in finishing the building postponed the opening until Wednesday, April 13.

The school will accommodate twenty-seven pupils. During the first three months pupils were received on the recommendation of the examining physician of the Anti-Tuberculosis Association. Since September, however, pupils have been admitted on the recommendation of the medical inspectors of the schools and of the visiting nurse, and they are returned to their regular classes when their physical improvement, as shown by a careful examination, is such as to lead the inspector and nurse to advise this action.

The school opened with fourteen pupils, but before the end of April the membership had increased to twenty-three. During May and June four more entered making twenty-seven in all during the spring term. But there were three withdrawals. One boy, after a stay of a few weeks and after having proved by his conduct that he was intolerable, was transferred to a private school. Two left the last of June, one returning to the Peabody, the other to graduate with his class from the Thorndike School.

The school opened in September with twenty-four of its old pupils. During October three new members were admitted, in November six others, in January three, in February two and in March two more.

Since the opening of the school, forty-three children have had the advantages it offers. Of these—six each came from the Boardman, Roberts and Wellington districts; four from the Houghton; three from the Morse; two each from the Parker, Putnam, Tarbell and Willard; and one each from the Agassiz, Fletcher, Gannett, Harvard, Kelley, Peabody, Russell, Thorndike and Webster, and from St. Paul's Parochial School. Nineteen of them were boys, and twenty-four were girls. Their ages have varied widely, there being one six years old, four seven years, five eight, nine nine, seven ten, four eleven, seven twelve, two thirteen, three fourteen, and one fifteen years old. The average age of the boys in the school was a little over ten years, and of the girls almost exactly ten years.

Since September, thirteen have left the school for the following reasons—nine, on account of their general improvement in health and weight, have been transferred to their regular classes; two have been placed in a charitable institution on account of home conditions; one, being over fourteen years of age, was kept at home to work; and one suffered so much from asthma during damp weather that she seemed to be injured rather than benefited by the open air treatment, so, after a trial of two weeks, she withdrew. The school is full, and there are several names on the waiting list.

The school being necessarily ungraded, the instruction is largely individual. In fact, every grade of the elementary schools, except the eighth year, has been represented. There were nineteen pupils from the primary grades and twenty-four from the grammar grades, and yet the progress of the pupils in their studies has been very commendable. In most cases, the improvement in scholarship has been quite as marked as the improvement in health.

The improvement in the general health of the children as indicated by complexion, appearance of the eyes, increase in strength and activity has been noticeable. The increase in weight has also indicated a gradual return to normal health. The children are weighed regularly once a month. The average increase in weight, of those who have been in the school six months, is five pounds, the individual gain varying from one to ten and a quarter pounds. The average gain of the boys was a little over four pounds, while that of the girls was a little over five and a quarter pounds in the same time. The

greatest individual gain among the boys was three and a quarter pounds in two months, and the greatest among the girls was eight pounds in three months.

With the exception of the asthmatic case mentioned above, there has apparently been no case of physical loss on the part of the pupils.

On entering the school each child is provided with a chair bag, a leg blanket, a soapstone foot warmer, a worsted toque, a pair of woolen gloves and an outside coat. With this equipment the children are comfortable even in the severest weather.

The daily program of the school is as follows:—

9.00. Opening exercises.
9.05. Music.
9.25. Spelling or dictation.
9.35. Number, reading or geography.
10.00. Oral language.
10.20. Health talks.
10.30. Recess for lunch of milk in summer and of cocoa in winter.
11.00. Arithmetic, lower grades.
11.25. Arithmetic, upper grades.
11.50. Memory gems.
12.00. Preparation for lunch by washing faces and hands, etc.
12.15. Lunch of some good nourishing soup and such food as pupils bring from home.

Rest Period.

1.00. Reading for all classes.
2.00. Dismissal.

During the spring term the pupils spent the time from two to three o'clock at work in their school gardens or at play.

The most unfavorable conditions at this school have been due to the inadequate drainage and unsatisfactory grading of the grounds. The drainage should be such as to keep the basement of the building dry at all times, and the grading of the grounds should be such as to keep them in suitable condition for play, except in stormy weather.

The school is strongly approved by the visiting nurse, the director of physical education and by the medical inspector of that district.

The per capita cost of the running expenses of the school—instruction, fuel, care and supplies, including food supplies—was $42.72, reckoned upon a membership of twenty-seven, the capacity of the school. This, however, does not include the food supplies furnished by the Anti-Tuberculosis Association during the first term. This society also furnished the chair bags, and assisted materially in other ways until the school was well established.

The further extension of this work can be made very satisfactorily and most economically by changing the windows of one room in each of several large buildings, so they can be easily and fully opened. This room should be on the south side of the building, opened to the sun but least exposed to the storms. In this way, open air schools could be provided for all pupils needing the treatment without requiring them to go long distances.

The experience of the past year has demonstrated that our schoolrooms generally are much overheated and are supplied with air much too dry. Not only the health and comfort but the scholarship would be greatly improved by furnishing less heat and more moisture in the air. Our standard of temperature should be lowered five degrees at least. How the necessary humidity may be secured is a problem for others to solve.

SIGHT AND HEARING TESTS

The annual tests of the sight and hearing of the school children, except those in the first year primary and kindergarten classes, were made in October. Parents of children found seriously defective were notified as required by law, and many of the cases reported have received professional treatment. The percentage of defectives was somewhat smaller this year than last, the per cent of defective eyes being twenty, the same as last year, and the per cent of defective ears being two and one-half instead of three.

The results of the examinations were as follows: Number enrolled, 15,744; number examined, 12,791; number defective in sight, 2,549; number defective in hearing, 320; number of parents notified, 1,888.

EXAMINATION OF THE TEETH OF THE SCHOOL CHILDREN

This examination has been continued during the year under the same conditions as last year. The following facts are reported by Dr. R. R. Andrews, who, together with his associates, have taken great interest in this important work:—

The dentists of Cambridge have examined the teeth of the children of the Wellington, Kelley and Gannett schools, and are now at work on those of the Roberts. The teeth of about two thousand children have been examined. The dentists find the mouths of the

older children in deplorable condition—quite ninety-five per cent need immediate attention in order to save what few teeth can be saved. The condition of the younger children is a little better, although most of the sixth year molars need immediate attention to save them. Very few of the children examined give their teeth any care—even the tooth brush being used very little.

Much might be done for mouth sanitation by clear definite talks to the children, showing the great need of good teeth and a healthy mouth. Such talks can be given by the teachers and by the dentists.

The Committee interested in dentistry for school children is trying to establish in East Cambridge a *school dental clinic*, where the urgent cases can be attended to at a very small cost to the children—enough to pay for materials. It has already secured about $250 for this object and wants about $250 more, which it hopes to raise before another fall. If the School Committee can provide a room for this purpose, the dentists of Cambridge are willing to give their time. They would fill the teeth of the children with plastic filling, extract those that cannot be saved, and give advice how to keep the mouth clean and healthy. They wish to be of more real service to the children.

The examinations are made on Thursday mornings at the school, from 9 to 10.30 o'clock, four dentists usually being in attendance.

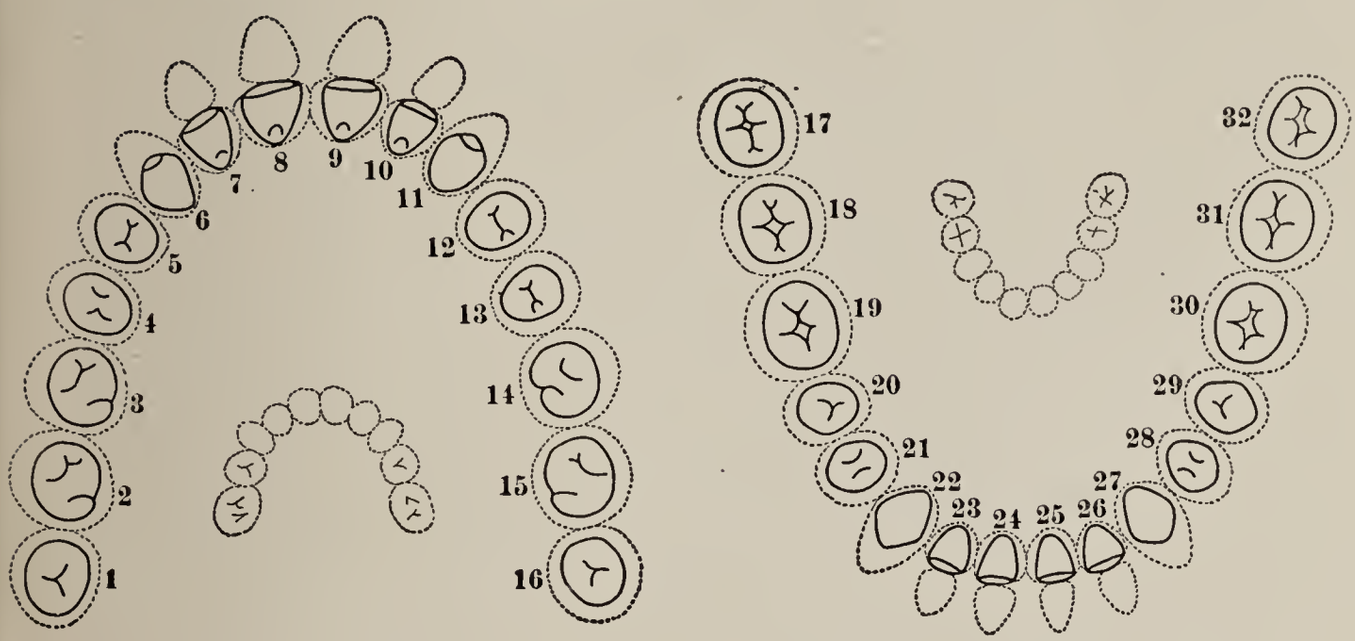
After the examination, a card, similar to the following, properly marked and filled out, is given to each child in need of professional treatment. A duplicate card is kept on file at the school.

.....*School.*

Pupil.....*Age*.....

Parent.....

Address.....



NOTICE TO PARENTS.

..... has been examined by me and found to have teeth which must be attended to. You are advised to apply at once to your family dentist for treatment. If circumstances do not permit consulting a dentist at his office, the child will be treated at cost, at the Harvard Dental School Infirmary, Longwood Avenue, cor. Wigglesworth Street, Brookline, Monday, Tuesday, Wednesday and Friday mornings at 9 o'clock, and every afternoon at 2 except Saturday; or at the Tufts College Dental School Infirmary, 416 Huntington Avenue, Boston, every morning at 9.

..... D.M.D.

Examining Dentist.

DENTAL DEPARTMENT OF THE

CAMBRIDGE PUBLIC SCHOOLS

As the germs of Consumption get into the body through decayed teeth, all decayed teeth must be attended to at once.

DIRECTIONS FOR THE CARE AND USE OF THE TEETH.

1.—The teeth should be thoroughly brushed after each meal, and especially before going to bed.

2.—A tooth powder used on the brush helps to clean the teeth.

3.—The slow and thorough chewing of all food helps to preserve the teeth and keep the mouth in a healthy condition.

4.—Children's teeth must be examined by a dentist at least twice a year.

SEWING AND MANUAL TRAINING

At the opening of the fall term courses in sewing for the girls and in wood work for the boys were established for all pupils of the last three years of the grammar schools, two hours a week being given to these subjects in the last two years and one hour a week in the other.

The shop work for the boys has been carried on under some difficulties, due chiefly to necessary passing of many boys from their own school to another building for their lessons. But, hereafter, the conditions will be much improved as the boys of the Roberts and Russell schools will be provided for in those buildings.

The work in sewing, which was started in these grades last year, has generally been very creditable both to the girls and to the teachers. The shop work of the boys has varied considerably in quality, due both to the great difference in the mechanical ability of the boys and to the varied skill of the instructors. This being the first year of this kind of work for most of the boys, it has necessarily been very elementary in character. It will take about two years more to show the full scope and value of these courses.

Miss Gordon, the Director of Sewing, reports as follows upon the work of the year:—

"Upon entering the sewing class each girl makes a sewing bag of print or gingham, which gives practice in the plain stitches—basting, stitching, overcasting, overhanding, hemming and running—in which she preserves her own work for reference.

"The next piece of work is a gored flannel skirt, cut by pupils, a few at a time, while the others are sewing. When all are cut out, one or two lessons are taken for pinning and basting the parts of the skirt, which is then laid aside until the sewing bag is finished. In addition to the plain stitches, this garment gives practice in gathering and in feather stitching. Average pupils will complete this amount of work in a school year.

"In the eighth year, hemstitching is first taught, and each girl hemstitches a towel of huckabuck. These towels have been well done, and the work much enjoyed. The garment in this year is a kimono, a long-sleeved apron, nightdress or guimpe. Any extra time is spent on fancy stitches or some smaller garment.

"In the ninth year, the majority of the garments are dresses. There are also some nightdresses, kimonos, white skirts, guimpes, shirt waists and long-sleeved aprons. Nearly all pupils also make a

muslin apron or fancy bag for hand work. On the garments all seams and tucks are stitched on the machine. The use of the machine has given great pleasure to the girls, many of whom had never been allowed to run one before. Instruction in using patterns is given in this grade, each girl having one of her own. It is expected that every girl will be able to complete three garments, at least, during her course in sewing, and also learn to darn stockings and make button holes."

DIRECTOR OF MUSIC

Early in the fall term Mr. Frederick E. Chapman, who had been director of music since January, 1891, tendered his resignation to take effect at the pleasure of the School Committee, but not later than September 1, 1911, stating that he had a chronic throat trouble of which he could not hope to be permanently relieved in this climate. No action having been taken upon his resignation, Mr. Chapman, in December, requested a leave of absence from the first of February to the end of the school year and his request was granted. It is not Mr. Chapman's intention to return next year as he feels that his health will not warrant it and that, after twenty years of service, he owes it to himself to take sufficient time for complete rest. That he may fully recover his health and may soon be able to resume work under favorable and enjoyable conditions is the sincere wish of his many friends in Cambridge.

As soon as it became known that Mr. Chapman wished to retire at the middle of the year, several promising candidates for the prospective vacancy appeared. After a very careful investigation, Mr. John B. Whoriskey was selected to take charge of the music until September 1, 1911. Although Mr. Whoriskey had had no experience as instructor in the public schools, his temperament, personality, musical ability and experience elsewhere gave every promise of his success in the position. Thus far he has proved a valuable man, satisfactorily meeting every reasonable demand and expectation.

DRAWING

The following report is submitted by Mr. Roos, the Director of Drawing:—

"In the department of art education the new developments in the High and Latin School are especially noteworthy. That the

pupils have availed themselves of the opportunities opened for them is shown by the large number who are taking the subject as an elective study.

"Until the four-years course becomes fully established the work of the teacher will increase each year. Some of the classes are very large and, if this attendance should increase, there will be need of an additional teacher for the coming year. Miss Carret's work is being done under difficulties owing to a lack of proper equipment. With the facilities that the new rooms will afford and with the continued interest of the school authorities the future of art education in the Cambridge schools is very promising.

"In the primary and grammar grades the course is undergoing readjustment to the new arrangement of grades and years and will be ready for the teachers on the opening of the next school year. With the approval of the superintendent, water colors are to be placed in the ninth grade. The introduction of sloyd in the upper grades will furnish an interesting motive for the mechanical as well as for the decorative side of the art course.

"With the changes in the High and Latin School it has become possible for the assistant teacher, Miss Jennison, to visit the primary schools oftener than in former years. She also visits the fourth and fifth year classes in some of the mixed schools. My time has, for the greater part, been given in the grammar schools and to some extent in the High and Latin School and the evening free-hand school.

"The plan for holding exhibitions of the work of pupils every third year will be worked out in four of the large schools this year, viz., the Fletcher, Peabody, Putnam and Webster. About an equal number will take up the plan next year, and still others the following year, so that there will be, in the different sections of the city, an exhibition every year. The High and Latin School will hold exhibitions annually."

EVENING SCHOOLS

There are eight evening schools—one industrial school, two drawing schools, one high school, and four elementary schools. In accordance with the rules of the School Board, there are two terms of the evening schools. The first term begins on the second Monday of October and continues every Monday, Wednesday and Friday evening until the end of the week before Christmas. The second term begins on the first Monday, Wednesday or Friday evening after the opening of the day schools in January, and continues at least

twenty-five evenings. The sessions begin at half past seven o'clock and continue two hours. No session is held on the evening of a holiday or during the vacations of the day schools.

The Evening Industrial School is held at the Rindge Manual Training School building, and offers courses in machine shop work, wood-turning, pattern-making, forging and foundry work. The head master of the Rindge Manual Training School is principal of the school.

The Mechanical Drawing School is in the same building and in charge of the same principal as the Industrial School. This school provides two courses in drawing—a three-years course in machine drawing, and a three-years course in architectural drawing.

The Free-hand Drawing School occupies one room in the English High School building and is under the supervision of the director of drawing for the day schools. This school offers a three-years course in free-hand drawing which includes drawing from a life model. Diplomas are given to graduates of both drawing schools.

The Evening High School is held in the English High School building and offers a three-years course of instruction in the following subjects: Commercial arithmetic, bookkeeping, algebra, geometry, stenography and typewriting, English composition, English literature, civics, history, Latin, French and German. Diplomas are given to graduates of the three-years course.

The evening elementary schools occupy rooms in four of the grammar school buildings, the Putnam, Roberts, Shepard and Webster. Reading, writing, arithmetic, geography, language, history and bookkeeping are taught in these schools in classes, so far as classification is possible, but a large part of the work is individual. No definite course is arranged, but an opportunity is offered to pupils to prepare to enter the Evening High School, and certificates are given to those who are qualified to begin work in that school. In addition to the subjects given above, classes in civil service, sewing, dressmaking, millinery, wood-working and mechanical drawing are formed when a sufficient number express an intention to take any of these courses.

The Evening Industrial School, the two drawing schools and the classes in dressmaking and millinery in the four elementary schools, have been carried on by the School Committee under the direction of the State Board of Education.

The Director of Evening Schools reports that hardly a school has the same teaching staff for two consecutive years, and that

usually not more than sixty per cent of the old pupils return each year.

The attendance in all the schools has been somewhat less than last year. The decrease at the Shepard School has been so marked that it seems well to consider whether the school should not be opened in some other building. As a number of pupils come from the Mt. Auburn district, perhaps one of the buildings in that part of the city would prove a better location. The attendance of illiterate minors is not as regular as it should be, and a more rigid enforcement of the legal requirements seems necessary.

Good progress has been made towards classifying the pupils in the dressmaking sections so as to have them work in definite courses of two or three years. The teachers are expected to teach and guide the pupils in their work rather than merely assist them in making some garment.

It is difficult to secure enough satisfactory teachers for the evening schools. Untrained and inexperienced persons generally prove inefficient. The day school teachers are by far the most successful, but few of them are able to teach both day and evening schools without overtaxing their strength and diminishing their efficiency.

The following table shows the attendance at the evening schools, including the attendance at the industrial schools and at the industrial classes in the elementary schools, which were carried on under the direction of the State Board of Education during the year 1910–1911:—

	Number Registered	Average Attendance	Average No. of Teachers*	Average No. of Pupils to a Teacher	Number of Graduates
Industrial School	107	51	4	13	7
Mechanical Drawing	117	47	4	12	7
Free-hand Drawing	57	23	2	11	2
High School	315	156	10	15	18
Putnam School	725	220	19	12	34
Roberts School	758	298	25	12	36
Shepard School	176	74	6	12	12
Webster School	302	112	10	11	18
Total	2,557	981	80	12	134

* The principals and curators are not included in these averages.

The following table shows the attendance at the industrial schools and at the industrial classes in the elementary schools:—

	Number Registered	Average Attendance
Industrial School	107	51
Mechanical Drawing School	117	47
Free-hand Drawing School	57	23
Putnam School	110	41
Roberts School	134	60
Shepard School	88	32
Webster School.	86	27
Total	699	281

The following table shows the cost of the evening schools, including the cost of the industrial schools and of the industrial classes in the elementary schools, which were carried on under the direction of the State Board of Education during the year 1910–1911:—

	Cost of Instruction	Cost of Text-Books and Supplies	Cost of Light, Fuel and Janitors	Total Cost	*Cost per Pupil
Industrial School	$1,309 00	$226 49	$641 09	$2,176 58	$43 44
Mechanical Drawing	819 00	141 41	333 66	1,294 07	28 36
Free-hand Drawing	378 00	36 77	54 71	469 48	22 10
High School	1,585 00	120 09	601 87	2,306 96	15 04
Putnam School	2,192 50	61 91	484 09	2,738 50	12 62
Roberts School	2,721 00	79 16	501 98	3,302 14	11 21
Shepard School	924 50	5 69	134 20	1,064 39	14 91
Webster School	1,224 00	39 02	353 80	1,616 82	14 78
Director of Evening Schools	315 00	.....	.....	315 00	.....
Total	$11,468 00	$710 54	$3,105 40	$15,283 94	$15 58

* In obtaining the cost per pupil in each school, a proportional part of the salary of the Director of Evening Schools is added to the cost of each school as given above.

VACATION SCHOOLS

The vacation schools for the summer of 1910 opened on Tuesday, July 5, in the following school buildings: The Rindge Manual Training, the English High, the Putnam, Roberts, Shepard and Webster, and continued for five weeks, closing on Friday, August 5.

There were two sessions of two hours each for five days in the week, one division attending the first two hours, and another the last two hours. At the beginning it was found necessary, on account of the large numbers in the divisions, to have a division in sloyd and another in cooking in the afternoon, but as the numbers decreased, all of the divisions were cared for in the morning.

The experiment of establishing a special class for ninth year pupils, who had failed in June to secure certificates admitting them to the high schools, proved of great advantage to those children. By means of the summer school work a large per cent of them were able to pass the entrance examination in September without having been put to the expense of a tutor. No class of pupils in the vacation schools received greater benefit than this one. In fact, the new emphasis placed upon the academic work in all the grammar grades last summer proved very profitable to many children who had failed of promotion.

One thousand three hundred thirty cards were issued from the office to pupils from the grammar grades in any school in the city. After the first day any pupil from a grammar grade was allowed to enter without a card. The cards were given in order that the pupils might know which school to attend and be able to begin work the first day.

One thousand one hundred fifteen pupils were registered, and the average attendance was six hundred eighty-one. The interest in the schools continued until they closed, as on the first Friday there were eight hundred twelve present, and on the last Friday six hundred fifty-six.

The older pupils were given a choice of either basketry, cooking, sewing, sloyd or academic work. The younger pupils were given lessons in water color painting, reading, writing and in many other kinds of work that were pleasing and profitable to them. Trips were taken to Agassiz Museum and to other places of interest.

Five teachers of sloyd were employed, two of basketry, two of cooking, six of sewing, one of music, and eleven with the academic pupils, a total of twenty-seven.

The following table shows the number in attendance at each school, and the line of work in each:—

SCHOOLS	Subject	Number Registered	Average Attendance
Rindge Manual Training School	Sloyd	59	31
English High School	Academic	113	88
	Basketry	66	53
	Cooking	84	48
	Sewing	34	21
	Sloyd	40	26
Putnam School	Academic	109	33
	Sewing	60	34
	Sloyd	40	10
Roberts School	Academic	84	46
	Sewing	58	29
	Sloyd	54	28
Shepard School	Academic	78	68
	Sewing	45	39
Webster School	Academic	105	62
	Sewing	86	65
Total		1,115	681

The following table shows the number registered in each subject with the average attendance:—

	Number Registered	Average Attendance
Academic	489	297
Basketry	66	53
Cooking	84	48
Sewing	283	188
Sloyd	193	95
Total	1,115	681

The cost of the vacation schools was $1,423 for salaries of teachers; $160 for salaries of janitors, and $219.68 for supplies, a total of $1,802,68, or $2.64 per pupil, based on the average attendance.

TRUANT OFFICERS

JOHN CARMICHAEL
TRUANT OFFICER
1893—1910
Died October 1, 1910
A faithful, efficient, highly respected officer

The city is divided into four districts, and to each of these districts a truant officer is assigned. Among their duties are the following: To visit each school at least once a day, unless otherwise directed by the agent of the Board; to prevent children from loitering about the school premises; to notify the teachers of all cases of contagious or infectious diseases reported by the board of health; to attend the evening schools when so directed by the agent; to assist in the preservation of order, and to visit places of business where children are employed, to see that none are employed unlawfully. They make all complaints at the district court for truancy, and take boys to the Middlesex County Truant School when they are sentenced.

The work of the truant officers is carried on under the supervision of the agent of the Board, whose duty it is to consider all cases of truancy, of persistent violation of the rules of the schools, of juvenile vagrancy, of unlawful detention from school, of neglect by parents; and of any failure on the part of pupils or parents to comply with the rules of the School Board or the public statutes relating to school attendance. It is also the duty of the agent to direct the officers to make complaints; to certify to the records in these cases when presented before the district court; and to exercise such supervision of the boys who are sent by the court from Cambridge to the truant school as may be allowed under the statutes.

The following is a summary of the work of the truant officers during the school year from September 1, 1909, to July 1, 1910:—

Whole number of absences investigated	12,124
Truancy, first offence	743
Truancy, third offence	144
Truancy, fifth offence or more	168
Complaints at court	10
Children put on probation	1
Sentenced by the court	9
Children found wandering about the streets	83
Such children sent to school	65
Visits to mercantile or manufacturing establishments	334
Children employed without certificates	8

The statistics of the private schools, obtained by one of the officers, show that there are ten private schools in the city, which receive $45,626 for tuition, and five parochial schools. The following is the number of pupils in these schools:—

Parochial schools	3,842
Private schools	315
Total number of pupils not in public schools	4,157

CONCLUSION

Many changes both in the organization of the schools and in the courses of study have been made during the year, but they have been recommended only after a careful study of local conditions and always with the welfare of the children and the community in mind. It is only natural that these changes should call forth criticisms both favorable and unfavorable, as they have. But the unbiased criticism of the competent is always helpful and even from the honest criticism of the incompetent much may be learned. If any persons, having the best interests of the schools at heart, have been disturbed by the changes or made fearful of the results either in efficiency or in expense, I would ask them to suspend their judgment until time demonstrates the wisdom or unwisdom of what has been done. In the nature of the case the evidence is incomplete at present, and no prophecy will change the final verdict of experience.

In closing, I wish to thank most sincerely the members of the Committee, who have worked so untiringly for the improvement of the schools, the large body of worthy teachers, who have constantly co-operated with me in the effort to meet more fully the educational needs of the children, and the many citizens, who have given words of appreciation and encouragement during the year.

Respectfully submitted,

FRANK E. PARLIN,
Superintendent of Public Schools.

REPORT OF THE SUPERINTENDENT OF PUBLIC BUILDINGS

FRANK E. PARLIN, A. M.,
Superintendent of Schools,
Cambridge, Mass.

Dear Sir:—At the suggestion of Professor Beale, I submit the following report of the work on schoolhouses during the past year, together with a recommendation:—

In addition to the ordinary repairs on schoolhouses, the past year witnessed a beginning in the direction of securing better and safer heating and ventilating conditions for our old buildings. The presence of eight hot air furnaces in the basement of the old buildings of the Webster School, with their accompanying danger to life and health, made so strong a contrast with the fireproof building and modern heating apparatus of the new addition, that a beginning was made at this school to correct an evil which exists in a large number of our school buildings. By removing these furnaces and the installation of an additional boiler it was possible to secure for the old buildings a near approach to the ideal ventilating conditions existing in the new addition.

For the forthcoming year I would respectfully suggest that this work, so well begun, should continue, and plans be prepared to secure the improvement of as many schoolhouses from the standpoint of safety from fire as is possible. In order to do this, the tinting of classrooms, the renewing of floors and furniture, and other work which might well be held in abeyance, be postponed, and the money ordinarily spent for these purposes be applied to the work of making these necessary and vital changes.

Following is a brief statement of repairs made on schoolhouses during the past year:—

Agassiz.—New floors in three class and dressing rooms; new shades; roof repaired and guaranteed for two years.

Boardman.—Classrooms tinted.

Ellis.—Concrete chimney caps; slate blackboards repaired; new stair treads; classrooms tinted.

Fletcher.—Changed ash lift and protected covers; classrooms tinted.

Gannett.—Painted outside, and classrooms tinted; new shades.

Gore.—Tinted two classrooms and corridor.

Harvard.—Painted outside.

High.—Concrete chimney caps.

Houghton.—Classrooms tinted; new desks and irons in three classrooms.

Kelley.—Granolithic walk.

Latin.—Repairs in gymnasium; new seats and desks.

Lowell.—New folding gate; new shades.

Merrill.—New boiler grate and setting.

Morse.—Painted inside; new boiler tubes.

Parker.—Painted inside; classrooms tinted; copper conductor.

Putnam.—New stair treads; classrooms tinted.

Rindge.—Roof and conductors repaired; new shades.

Roberts.—New fence; new shades; new treads; classrooms tinted; painted inside and outside.

Russell.—Blackboards repaired.

Shepard.—Classrooms tinted; new floors in two rooms; new shades.

Sleeper.—Ash hoist; new shades; concrete chimney caps.

Tarbell.—Classrooms tinted.

Taylor.—New section of fence; new boiler tubes.

Wyman.—Classrooms tinted.

All Schools.—Setting glass; carpenter repairs; boilers and furnaces repaired.

Boiler changes were made in the following schools to bring the auxiliary heaters under the rules of the boiler inspection department of the district police—Ellis, Felton, Fletcher, Harvard, Houghton, Kelley, Morse, Parker and Wellington.

Respectfully,

JEREMIAH F. DOWNEY,
Superintendent of Public Buildings.

STATISTICS

FINANCES

For the financial year from April 1, 1910, to April 1, 1911

Receipts

Amount received from the tax levy under the City Charter	$524,687 95
Revenue received	10,822 26
Total amount available for school purposes	$535,510 21

Expenditures

Salaries of teachers, all schools	$389,219 05
General expenses	18,339 83
Text-books and supplies	27,791 75
Physical apparatus	1,448 27
Care and repair of buildings	62,316 06
Heat and light	22,466 40
Transportation of pupils	327 00
Support of truants	2,287 69
Drinking fountains	1,050 60
Other school expenses	1,390 96
Transferred for repairs to the Webster School building	8,345 80
Tuition of Cambridge pupils in Boston Trade School for Girls	383 21
Total amount expended	$535,366 62
Balance unexpended	143 59

Cost of Instruction in the Day Schools.

Salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers.

Year	*Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1903	428	14,935	14,397	$349,179 80	$24 25
1904	435	15,075	14,454	356,406 89	24 66
1905	447	15,364	14,606	366,448 39	25 09
1906	455	15,475	14,907	377,343 02	25 31
1907	460	15,580	14,957	385,927 00	25 80
1908	454	16,019	15,214	374,000 99	24 58
1909	457	15,895	15,465	389,919 31	25 21
1910	456	15,633	15,457	391,398 56	25 32

Cost of the Day Schools.

Cost of instruction, of text-books and supplies, of incidental expenses, of the care of truants, of the care of schoolhouses, and of the transportation of pupils.

Year	*Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1903	428	14,935	14,397	$429,554 39	$29 84
1904	435	15,075	14,454	450,310 44	31 15
1905	447	15,364	14,606	462,412 09	31 66
1906	455	15,475	14,907	464,529 43	31 16
1907	460	15,580	14,957	488,636 18	32 67
1908	454	16,019	15,214	477,286 82	31 37
1909	457	15,895	15,465	489,712 68	31 66
1910	456	15,633	15,457	492,579 06	31 86

* The unassigned teachers are not included in the number of teachers.

Cost of Instruction in the Evening Schools.

Year	Drawing	Industrial	High	Elementary	Director	Total
1908	$1,291 00	$1,345 00	1,649 00	$7,574 00	.....	$11,859 00
1909	1,249 00	1,300 00	1,597 00	7,308 50	.....	11,454 50
1910	1,197 00	1,309 00	1,585 00	7,062 00	$315 00	11,468 00

Cost of Instruction.

From April 1, 1910, to April 1, 1911.

Schools and Officers	Cost of Instruction	Average Number of Pupils	Cost per Pupil
High and Latin School	$52,431 41	994	$52 74
Rindge Manual Training School	31,739 02	549	57 81
Training School (Teachers)	15,803 11	807	19 58
Grammar Schools (Except Training)	146,748 40	7,054	20 80
Primary Schools (Except Training)	86,047 08	5,321	16 17
Kindergartens	19,249 74	732	26 29
Fresh Air School	920 08	.....	.....
Manual Training in Elementary Schools	2,923 00	.....	.....
Substitutes	4,708 54	.....	.....
Directors in Drawing	2,850 00	.....	.....
Directors in Music	2,984 00	.....	.....
Directors in Physical Education	2,141 92	.....	.....
Teachers of Sewing	2,887 25	.....	.....
Unassigned Teachers	4,264 50	.....	.....
Superintendent	3,792 00	.....	.....
Supervisor of Primary Schools	1,350 00	.....	.....
Secretary and Agent	2,850 00	.....	.....
Clerks	2,254 26	.....	.....
Truant Officers	3,954 25	.....	.....
Porter	700 00	.....	.....
Rindge Manual Training School, summer sessions for Harvard Students	800 00	.....	.....
Total	$391,398 56	15,457	$25 32

Cost of instruction in Evening Drawing Schools	$1,197 00
Cost of instruction in Evening Industrial School	1,309 00
Cost of instruction in Evening High School	1,585 00
Cost of instruction in Evening Elementary Schools	7,062 00
Salary of Director of Evening Schools	315 00
Total	$11,468 00
Cost of instruction in Vacation Schools	$1,423 00

SCHOOLS, 1910–1911—CARE AND REPAIR

NAMES	FUEL		REPAIRS			SUPPLIES					Extra Help	Janitors	Care of Flags	Total
	Coal	Wood	On Building	On Furniture	On Heating App's	Furniture	Gas	Electric	Sundries	Furnishings				
Agassiz	$261 75	$16 25	$735 48	$2 60	$31 25	.....	$6 29	.....	$35 17	$49 97	.....	$732 00	.....	$1,870 76
Boardman	260 20	16 88	226 08	6 20	10 50	12 56	6 46	.....	25 14	.....	.....	732 00	1 19	1,297 21
Corlett	51 50	16 38	47 09	3 00	9 80	.....	.....	.....	4 85	.....	.....	261 43	.....	394 05
Cushing	103 00	16 37	25 21	3 00	13 15	.....	.....	.....	5 51	.....	.....	261 43	.....	427 67
Ellis	779 90	7 50	1,029 15	9 75	7 53	43 25	8 33	.....	62 29	6 13	.....	1,098 00	.....	3,051 83
Felton	234 00	12 50	28 96	.....	27 33	.....	20 40	.....	15 96	.....	.....	575 14	.....	914 29
Fletcher	756 07	8 25	302 99	11 48	8 46	50	5 10	27 48	74 57	9 60	.....	1,228 71	.....	2,433 21
Gannett	311 23	16 25	157 81	3 00	17 50	38 75	1 87	.....	7 26	.....	.....	627 43	.....	1,181 10
Gore	128 75	.....	138 90	4 31	.....	45 75	18 53	.....	52 30	.....	.....	941 14	1 16	1,330 84
Harvard	496 25	.....	314 16	2 00	122 55	.....	2 04	24 52	48 50	1 00	.....	1,307 14	.....	2,318 16
English High Bldg	1,498 00	30 00	736 33	40 70	24 24	.....	24 65	369 96	92 40	5 00	251 50	2,877 43	.....	5,950 21
Houghton	980 41	7 50	363 27	32 85	60 11	.....	.....	42 72	84 54	18 13	.....	1,228 71	1 18	2,819 42
Kelley	781 50	16 50	334 17	50 95	49 61	.....	4 25	35 64	77 11	.....	2 00	1,359 43	4 72	2,715 88
Lassell	257 50	16 25	29 46	.....	24 08	3 00	.....	.....	25 53	.....	15 00	522 86	1 16	894 84
Latin Building	1,551 58	7 50	699 56	24 06	29 70	395 25	19 89	444 24	94 35	193 25	.....	3,184 28	.....	6,643 66
Lowell	164 00	13 00	184 76	1 50	121 07	31 00	4 59	.....	16 38	.....	.....	644 29	.....	1,180 59
Merrill	105 78	7 50	51 86	.....	107 20	.....	17	.....	49 34	.....	.....	941 14	.....	1,262 99
Morse	988 29	7 50	520 45	4 00	85 78	.....	36 38	.....	82 15	84 67	2 00	1,307 14	2 35	3,120 71
Otis	84 02	16 25	93 02	.....	23 96	.....	30 09	.....	29 73	.....	.....	732 00	.....	1,009 07
Parker	309 00	21 25	291 82	1 00	45 79	.....	3 74	.....	53 65	3 00	.....	679 71	1 16	1,410 12
Peabody	721 00	7 50	506 74	3 15	273 91	8 80	1 87	44 64	76 35	7 13	13 00	1,228 71	2 35	2,895 15
Putnam	563 66	7 50	499 85	9 50	7 53	.....	115 09	159 24	93 48	.....	175 75	1,228 71	1 16	2,861 47
Reed	92 70	8 13	11 45	2 55	3 00	.....	.....	.....	11 52	.....	.....	522 86	.....	652 21
Rindge M. T.	1,910 55	.....	801 97	18 77	34 92	16 50	93 50	727 56	172 71	95 47	536 00	3,890 57	.....	8,298 52
Riverside	104 80	.....	2 00	.....	18 50	.....	.....	.....	6 14	.....	.....	182 14	.....	313 58
Roberts	787 98	12 00	1,182 75	2 00	64 11	138 05	177 99	51 84	129 02	1 25	213 75	1,307 14	.....	4,067 88
Russell	567 40	7 50	223 87	.....	.....	.....	12 07	.....	67 11	12 00	.....	1,045 71	.....	1,935 66
Shepard	262 00	3 75	280 31	10 55	25 84	22 75	8 16	10 00	54 73	4 50	102 00	941 14	.....	1,725 73
Sleeper	443 66	29 50	339 66	12 60	40 70	32 00	1 19	.....	42 63	12 00	.....	784 29	1 18	1,739 41
Tarbell	110 35	11 88	456 23	8 00	7 00	.....	.....	.....	16 67	.....	.....	462 15	1 18	1,073 46
Taylor	283 25	7 50	303 11	.....	336 14	.....	13 43	.....	60 12	4 00	.....	941 14	.....	1,948 69
Thorndike	412 00	16 25	31 13	2 00	21 03	.....	23 29	.....	66 13	.....	.....	941 14	1 17	1,514 14
Webster	1,023 19	15 00	150 45	.....	.....	.....	47 26	139 08	105 52	43 20	242 55	1,913 43	.....	3,679 68
Wellington	1,060 25	11 25	424 43	26 90	17 75	5 25	.....	49 20	74 57	6 13	26 50	2,562 00	2 38	4,266 61
Willard	437 75	7 50	536 38	.....	87 88	.....	44 54	.....	47 25	.....	.....	941 14	.....	2,102 44
Wyman	262 01	10 31	160 35	8 00	4 50	4 60	.....	.....	18 43	4 00	.....	627 43	.....	1,099 63
Fresh Air	33 64	4 50	869 10	.....	98 00	149 68	16 49	.....	30 21	29 62	2 00	.....	.....	1,233 24
All Schools	.....	.....	88 40	1 30	.....	.....	.....	.....	.....	.....	.....	1,400 00	.....	1,489 70
Office	.....	.....	.....	.....	.....	12 00	.....	.....	1 00	15 50	.....	.....	.....	28 50
	$19,178 92	$413 70	$13,178 71	$305 72	$1,860 42	$959 69	$747 66	$2,126 12	$2,010 32	$605 55	$1,582 05	$42,161 11	$22 34	$85,152 31

Care, repair and supplies distributed to schools as shown above	$85,152 31	
Stock on hand April 1, 1911	921 56	$86,073 87
Less stock on hand April 1, 1910		1,291 41
Amount expended for schoolhouse maintenance		$84,782 46

TEXT-BOOKS AND SUPPLIES

The following is an account of the purchases, expenditures and distribution of books and supplies during the school year 1909–1910. It is the twenty-fifth annual report of the agent, and the twenty-sixth in a series of reports of the supply department:—

Stock in storeroom July 1, 1909	$7,620 16	
Expended from the appropriation	23,934 80	
Value of exchanges	275 06	
		$31,830 02
Distributed to schools, officers, etc.	$23,502 28	
Sold for cash	296 91	
		23,799 19
Stock on hand July 1, 1910		$8,030 83

The purchases and expenditures appear in detail as follows:—

For text-books	$9,275 08	
Desk and reference books	198 88	
Copy books	417 68	
Apparatus and furnishings	1,172 21	
Diplomas, $14.40; printing, $196.53	210 93	
Repairing books, $627.59; tuning pianos, $39.50	667 09	
Expressage and labor	523 65	
Miscellaneous supplies	11,744 34	
		$24,209 86
Less the value of exchanges		275 06
		$23,934 80

The net cost of text-books and supplies is as follows:—

Stock on hand July 1, 1909	$7,620 16	
Bills paid by City Treasurer	23,934 80	
		$31,554 96
Stock on hand July 1, 1910	$8,030 83	
Cash paid to City Treasurer, sales and damages	831 01	
		8,861 84
We have net cost of all schools and officers		$22,693 12

or an average cost per pupil of $1.468. The average cost per pupil for twenty-six years is $1.326.

The annual cost per pupil for text-books and supplies since the introduction of free text-books is as follows:—

Year	Cost per Pupil	Year	Cost per Pupil	Year	Cost per Pupil
1885	$1.880	1894	$1.243	1903	$1.306
1886	1.170	1895	1.152	1904	1.468
1887	1.051	1896	1.436	1905	1.434
1888	1.068	1897	1.094	1906	1.476
1889	0.960	1898	1.268	1907	1.620
1890	1.334	1899	1.225	1908	1.443
1891	1.248	1900	1.740	1909	1.551
1892	1.149	1901	1.203	1910	1.468
1893	1.109	1902	1.400	....	.....

The net cost of each grade of schools for text-books and supplies is as follows:—

	Net Expense	Cost per Pupil				
		1910	1909	1908	1907	1906
Latin School	$977 05	$2.044	$3.333	$2.349	$4.136	$3.036
English High School	2,115 78	4.100	3.748	6.496	4.894	4.425
Manual Training School	4,756 09	8.633	11.198	9.077	10.723	9.679
Training School, Teachers	1,097 09	1.359	1.504	1.328	1.127	1.126
Grammar Schools	3,536 30	1.148	1.257	1.128	1.315	1.343
Mixed Schools	6,352 51	1.049	0.924	0.835	1.156	0.981
Primary Schools	2,272 14	0.701	0.605	0.444	0.584	0.508
Kindergartens	334 73	0.457	0.345	0.582	0.353	0.494
Evening Schools	478 83	.....	.....	.....	.....	.....
Vacation Schools	15 22	.....	.....	.....	.....	.....
Special Teachers	111 33	.....	.....	.....	.....	.....
Officers of Board	172 65	.....	.....	.....	.....	.....
Miscellaneous Expenses (not chargeable to any grade)	499 21	.....	.....	.....	.....	.....
	$22,718 93					
Less profit on sales	25 81	.....	.....	.....	.....	.....
	$22,693 12	$1.468	$1.551	$1.443	$1.620	$1.476

GENERAL STATISTICS

Population of Cambridge

1865	29,112	1895	81,643
1875	47,838	1905	97,434
1885	59,660	1910	104,391

School Census

Number of children in the city five years old or more, but less than fifteen:—

Number of children in the city between five and fifteen, boys 8,458; girls 8,586	17,044
Number in public schools between five and fifteen	12,966
Number in private schools between five and fifteen	3,560
Number not attending school between five and fifteen	518
Number in the city between five and six	1,685
Number in the city between seven and fourteen, boys, 6,009; girls, 6,151	12,160

Schools and Classrooms.

*a*High and Latin School	1	Classrooms in use	30
*b*Rindge Manual Training School.	1	" " "	15
*c*Grammar Schools	5	" " "	80
*d*Grammar and Primary Schools	14	" " "	159
Primary Schools	13	" " "	73
Kindergartens	16	" " "	16
Evening Industrial School	1	" " "	4
Evening Drawing Schools	2	" " "	3
Evening High School	1	" " "	11
Evening Elementary Schools	4	" " "	31
Whole number of Day Schools			50
Whole number of classrooms for Day Schools			373
Whole number of Evening Schools			8
Whole number of classrooms for Evening Schools			49

---

a This school occupies two buildings and has assembly halls, libraries, lecture rooms, recitation rooms, chemical and physical laboratories, a drawing room and a gymnasium.

b This school occupies three buildings and has an assembly hall, drawing rooms, recitation rooms, chemical and physical laboratories, and rooms for various kinds of shop work.

c Four of these have assembly halls.

d Nine of these have assembly halls.

Number of Teachers in the Day Schools.

December	High and Latin School*	Rindge Manual Training School	Grammar Schools	Primary Schools	Kinder-gartens	Directors and Special Teachers†	Total
1906	50	22	199	143	31	10	455
1907	51	25	199	143	31	11	460
1908	50	24	200	141	30	9	454
1909	47	24	204	142	30	10	457
1910	47	24	204	136	30	15	456

* The unassigned teachers are not included.
† This list includes the directors of music, drawing and physical education, and the teachers of sewing and manual training in the elementary schools.

Attendance at all the Day Schools.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	16,740	14,907	13,855	92.9
1907	16,803	14,957	13,878	92.8
1908	17,135	15,214	14,144	92.9
1909	17,431	15,465	14,414	93.2
1910	17,156	15,457	14,376	93.0

*Attendance at the English High School.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	619	570	545	95.8
1907	666	594	570	95.9
1908	640	584	560	95.8
1909	633	552	529	95.7
1910	574	516	496	96.1

*Attendance at the Latin School.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	577	530	508	95.8
1907	544	489	471	96.3
1908	547	506	487	96.2
1909	546	500	480	95.9
1910	514	478	460	96.3

* September 1, 1910, the English High School and the Latin School were united under the name of the Cambridge High and Latin School.

Attendance at the Rindge Manual Training School.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	489	440	417	94.7
1907	475	428	409	95.6
1908	549	489	461	94.2
1909	603	538	511	95.0
1910	623	549	522	94.9

Attendance at the Grammar Schools.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	7,412	6,887	6,508	94.5
1907	7,869	7,192	6,783	94.3
1908	7,909	7,283	6,892	94.6
1909	8,191	7,500	7,124	94.9
1910	8,254	7,569	7,142	94.3

Attendance at the Primary Schools.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	6,682	5,738	5,273	91.9
1907	6,324	5,551	5,092	91.7
1908	6,562	5,653	5,171	91.5
1909	6,409	5,610	5,148	91.7
1910	6,230	5,613	5,162	92.0

Attendance at the Kindergartens.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	961	742	604	81.3
1907	925	703	553	78.7
1908	928	699	573	81.9
1909	1,049	765	622	81.3
1910	961	732	594	81.1

NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE HIGH AND LATIN SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1910	100	14 years 6 months	338	14 years 8 months

*NUMBER OF PUPILS GRADUATED FROM THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1906	7	17 years 7 months	67	18 years 5 months
1907	11	19 years 1 month	108	18 years 7 months
1908	7	17 years 10 months	67	18 years 3 months
1909	5	17 years 9 months	80	18 years 6 months
1910	..	.....	78	18 years 6 months

*NUMBER OF PUPILS GRADUATED FROM THE LATIN SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1906	27	18 years 6 months	32	18 years 8 months
1907	22	18 years 11 months	35	18 years 4 months
1908	27	18 years 8 months	35	18 years 8 months
1909	18	18 years 11 months	25	18 years 9 months
1910	18	18 years 7 months	31	18 years 10 months

NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE RINDGE MANUAL TRAINING SCHOOL, WITH THE NUMBER OF GRADUATES.

Year	Admitted	Average Age	Graduated	Average Age
1906	167	14 years 11 months	45	18 years 9 months
1907	203	15 years 0 months	33	19 years 0 months
1908	205	15 years 0 months	51	18 years 8 months
1909	208	14 years 9 months	71	18 years 9 months
1910	219	15 years 2 months	68	18 years 1 month

* September 1, 1910, the English High School and the Latin School were united under the name of the Cambridge High and Latin School.

NUMBER OF PUPILS GRADUATED FROM THE GRAMMAR AND PRIMARY SCHOOLS.

Year	Grammar Schools	Average Age	Primary Schools	Average Age
1906	713	14 years 9 months	1,609	9 years 5 months
1907	735	14 years 9 months	1,467	9 years 5 months
1908	753	14 years 9 months	1,543	9 years 6 months
1909	756	14 years 9 months	1,516	9 years 5 months
1910	831	14 years 9 months	1,496	9 years 4 months

LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE GRAMMAR SCHOOLS.

Year	In 4 years	In 5 years	In 6 years	In 7 years or more
1906	6 per cent	27 per cent	51 per cent	16 per cent
1907	6 per cent	27 per cent	50 per cent	17 per cent
1908	7 per cent	24 per cent	52 per cent	17 per cent
1909	6 per cent	21 per cent	54 per cent	19 per cent
1910	6 per cent	26 per cent	52 per cent	16 per cent

LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE PRIMARY SCHOOLS.

Year	In less than 3 years	In 3 years	In 3½ years	In 4 years	In 4½ years or more
1906	5 per cent	58 per cent	4 per cent	25 per cent	8 per cent
1907	4 per cent	61 per cent	3 per cent	23 per cent	9 per cent
1908	5 per cent	64 per cent	3 per cent	22 per cent	6 per cent
1909	4 per cent	61 per cent	4 per cent	22 per cent	9 per cent
1910	4 per cent	65 per cent	3 per cent	20 per cent	8 per cent

NUMBER OF PUPILS IN THE HIGH AND LATIN SCHOOL, DECEMBER, 1910.

Year	Boys	Girls	Total	Per cent
Fourteenth	31	30	61	.052
Thirteenth	38	132	170	.145
Twelfth	56	171	227	.193
Eleventh	49	208	257	.219
Tenth	111	344	455	.391
Specials	..	4	4	....
Totals	285	889	1,174	....

NUMBER OF PUPILS IN THE RINDGE MANUAL TRAINING SCHOOL, DECEMBER, 1910.

Year	Boys		Per cent
Thirteenth	119	This school is for boys only. It became a part of the public school system, January 1, 1899.	.207
Twelfth	116		.201
Eleventh	130		.226
Tenth	211		.366
Total	576		....

NUMBER OF PUPILS IN THE GRAMMAR SCHOOLS, DECEMBER, 1910.

Year	Boys	Girls	Total	Per cent
Ninth	406	449	855	.111
Eighth	499	481	980	.127
Seventh	679	632	1,311	.170
Sixth	763	655	1,418	.184
Fifth	746	739	1,485	.192
Fourth	869	802	1,671	.216
Total	3,962	3,758	7,720	....

NUMBER OF PUPILS IN THE PRIMARY SCHOOLS, DECEMBER, 1910.

Year	Boys	Girls	Total	Per cent
Third	872	844	1,716	.317
Second	1,004	838	1,842	.341
First	982	866	1,848	.342
Total	2,858	2,548	5,406	....

NUMBER OF PUPILS AND TEACHERS IN THE KINDERGARTENS.

Year	Boys	Girls	Total	Number of Teachers
1906	398	402	800	31
1907	404	376	780	31
1908	427	440	867	30
1909	406	390	796	30
1910	381	376	757	30

SUMMARY.

DECEMBER, 1910.

Number of pupils in the High and Latin School	1,174
Number of pupils in the Rindge Manual Training School	576
Number of pupils in the Grammar Schools	7,720
Number of pupils in the Primary Schools	5,406
Number of pupils in the Kindergartens	757
Number of pupils in the public schools, December, 1910	15,633
Number of pupils in the public schools, December, 1909	15,895
Decrease of pupils, 1910	262
Decrease of pupils, 1909	124
Increase of pupils, 1908	439
Increase of pupils, 1907	105
Increase of pupils, 1906	111
Increase of pupils, 1905	289
Increase of pupils, 1904	140
Increase of pupils, 1903	188
Increase of pupils, 1902	253
Increase of pupils, 1901	62

REMARKS ON THE STATISTICS

The number of pupils registered in the day schools during the school year ending June 24, 1910, was 17,156, a decrease of 275 from the previous year; the average number belonging was 15,457, a decrease of 8; and the average daily attendance was 14,376, a decrease of 38. The number of pupils belonging to the day schools in December, 1909, was 15,895; in December, 1910, 15,633, a decrease of 262.

The cost of instruction for the day schools for the financial year from April 1, 1910, to April 1, 1911, which includes the salaries of the superintendent, supervisor, agent, secretary, clerks and truant officers, was $391,398.56. The total cost of the day schools, which, in accordance with the statutory definition of the support of schools, includes the cost of instruction, text-books and supplies, incidental expenses, care of truants, care of schoolhouses, the cost of fuel and light, and the transportation of pupils, was $492,579.06.

The registration in all the evening schools from October 10, 1910, to March 24, 1911, was 2,557, and the average attendance was 981. The total cost of these schools, which includes the cost of instruction, the cost of text-books and supplies, and the care of schoolhouses, including heat and light, was $15,283.94.

NUMBER OF PUPILS REGISTERED IN THE EVENING DRAWING SCHOOLS, WITH THE AVERAGE ATTENDANCE.

	1907–1908	1908–1909	1909–1910	1910–1911
Number registered	142	157	159	174
Average attendance	77	74	79	70

NUMBER OF PUPILS REGISTERED IN THE EVENING INDUSTRIAL SCHOOL, WITH THE AVERAGE ATTENDANCE.

	1907–1908	1908–1909	1909–1910	1910–1911
Number registered	93	98	111	107
Average attendance	57	56	59	51

NUMBER OF PUPILS REGISTERED IN THE EVENING HIGH AND ELEMENTARY SCHOOLS, WITH THE AVERAGE ATTENDANCE.

	1907–1908	1908–1909	1909–1910	1910–1911
Number registered	2,742	2,525	2,446	2,276
Average attendance	1,123	1,047	952	860

NUMBER OF PUPILS IN THE PRIVATE SCHOOLS IN CAMBRIDGE, INCLUDING THOSE IN THE PAROCHIAL SCHOOLS.

1905	1906	1907	1908	1909	1910
4,100	4,068	4,227	4,014	4,128	4,157

NUMBER OF AGE AND SCHOOLING CERTIFICATES ISSUED.

1905	1906	1907	1908	1909	1910
666	851	868	636	913	870
*749	*1,137	*857	*538	*556	*285

* Issued to minors over sixteen years of age.

TABULAR VIEW

Teachers in Service April 1, 1911

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
High and Latin School			
Leslie L. Cleveland	Head Master	Williams College, A.B.	Jan. 1910
Chester M. Bliss		Amherst College, A.B., A.M.	Sept. 1907
Thomas L. Bramhall		Harvard University, A.B.	Sept. 1910
George H. Cain		(Attended King's College)	Sept. 1909
Joseph A. Coolidge		Harvard University, A.B., A.M.	Mar. 1892
Cecil T. Derry		Harvard University, A.B., A.M.	Oct. 1905
Herbert H. Palmer		Amherst College, A.B.	Sept. 1909
John I. Phinney		Yale University, A.B.	Dec. 1897
Alfred R. Wightman		Brown Univ., A.M. and Harvard Univ., Ph.D.	Dec. 1905
S. Myrta Abbott		Normal School and Boston School of Domestic Science	Sept. 1908
Helen M. Albee*		Radcliffe College, A.B., A.M.	Sept. 1885
Alice C. Baldwin		Wellesley College, A.B.	Sept. 1895
Margaret S. Bradbury		Radcliffe College, A.B.	Jan. 1902
Alice M. Brown		Normal School of Gymnastics. (Special Courses)	Sept. 1910
Isabel S. Burton		(Private schools and studied abroad)	Sept. 1899
Ethel E. Carr		Radcliffe College, A.B.	Sept. 1908
Elise H. Carret		Normal Art School. (Special Courses)	Sept. 1910
Caroline Close		Cambridge Training School. (Special Courses)	Nov. 1874
Bertha L. Cogswell		Boston University, A.B., A.M.	Jan. 1894
Gertrude H. Crook		Boston Univ., A.B. Radcliffe College, A.M.	Sept. 1896
Mary L. Cunningham		Salem Normal School. (Courses at Radcliffe College)	Sept. 1900
Grace L. Deering		Maine Seminary. (Courses abroad and at Radcliffe College)	Feb. 1892
Grace E. Dennett		Radcliffe College, A.M. Simmons College, S.B.	Sept. 1907
Esther S. Dodge		Boston University, A.B.	Oct. 1897
Caroline Drew		(Private schools and studied abroad)	Oct. 1888
Elizabeth J. Fardy		Boston University, A.B.	Oct. 1909
Sara L. Fisher		Smith College, A.B.	Sept. 1910
Elizabeth B. Flanders		Framingham Normal School. (Courses at Radcliffe)	Sept. 1905
Florence H. French		Radcliffe College, A.B.	Nov. 1909
Margaret J. Griffith		Radcliffe College, A.B.	Sept. 1903
Mary C. Hardy		Smith College, A.B.	Dec. 1891
Elizabeth L. Huling		Radcliffe College, A.B., A.M.	Sept. 1905
Ellen P. Huling		Radcliffe College, A.B., A.M.	Sept. 1904
Sarah W. Kelly		Wellesley College, A.B.	Feb. 1911
Henrietta L. Kilpatrick		Royal University, A.B.	Sept. 1909
Maud A. Lawson		Radcliffe College, A.B.	Sept. 1892

*On leave of absence for study or travel in accordance with the Rules of the School Committee.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
High and Latin School—Con.			
Henrietta E. McIntire		Radcliffe College, A.B., A.M.	Sept. 1891
Mary Moulton		(Attended Wellesley College 2 years)	Sept. 1890
Louisa P. Parker		Westfield Normal School. (Courses at Radcliffe College)	Mar. 1881
Helen N. Parsons		Smith College, A.B.	Feb. 1911
Lillian C. Rogers		Boston University, A.B.	Sept. 1893
Ethel V. Sampson		Radcliffe College, A.B.	Sept. 1899
Caroline A. Sawyer		Boston Univ., A.B. Radcliffe College, A.M.	Sept. 1886
Florence W. Smith		Radcliffe College, A.B.	Sept. 1897
Martha R. Smith		Boston Normal School	Jan. 1882
Jennie S. Spring		Smith College, A.B.	Mar. 1886
Delia M. Stickney		Institute of Technology, S.B.	Sept. 1888
Annie F. Stratton		Radcliffe College, A.B.	Sept. 1899
Helen A. Taff		Radcliffe College, A.B.	Sept. 1910
Mabel D. Watson		Radcliffe College, A.B.	Sept. 1901
Elvena Young		Bates College, A.B.	Feb. 1911
Martha L. Babbitt	Sec. and Lib.	Cambridge Training School	May 1887
Annie S. Dodge	Sec. and Lib.	Cambridge Latin School	Dec. 1892
Rindge Manual Training School			
John W. Wood, Jr.	Head Master	Harvard University, S.B.	Jan. 1899
Myra I. Ellis		Cambridge Training School. (Berlin University)	Feb. 1878
Helen W. Metcalf		Mt. Holyoke College, A.B.	Sept. 1898
Gertrude B. Rogers		(Attended Colby College 2 years). Tufts College 2 years, A.B.	Feb. 1911
Anna R. Ward		Indiana State University	Sept. 1909
Florence Waugh		Radcliffe College, A.B.	Sept. 1907
Ingolf V. Bockmann		Norway Technical School. (Attended Sloyd schools)	Feb. 1911
Otis H. Bramhall		Harvard University, A.B.	Apr. 1908
Winburn S. Cannell		Tufts College, A.B.	Sept. 1908
Ernest Cobb		Tufts College, Ph.B. Harvard University, A.M.	Sept. 1910
James F. Conlin		Harvard University, A.B., A.M.	Feb. 1905
Ronald F. Davis		Mass. Normal Art School. (Special Courses)	Sept. 1910
Joseph B. Davison		Malden High S hool	Apr. 1909
Evan W. Griffiths		Harvard University, A.B.	Sept. 1903
John C. Hall		Boston University, S.B.	Sept. 1908
Edward R. Markham		Wesleyan Academy. (Courses in Mech. Engineering)	Sept. 1903
Clarence L. Mosher		Rindge Manual Training School	Sept. 1910
Joseph M. Norton		Dartmouth College, A.B.	Sept. 1899
Leverett L. Preble		(Private Instruction and Shop experience.) (Special Courses)	Sept. 1910
Charles H. Richert		Boston Normal Art School	Dec. 1905
Frederic H. Sawyer		Harvard University, A.B., A.M.	Sept. 1908
James G. Telfer		Common Schools	June 1889

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Rindge Manual Training School—Continued			
Albert L. Ware		Cambridge High School. (Mechanical Courses)	Aug., 1888
Max Weiss		Harvard University, S.B.	Sept. 1910
Howard A. Wiggin		Bates College, A.B.	Sept. 1908
Marion L. Pike	Secretary	Cambridge Latin School	Sept. 1909
Agassiz School			
Maria L. Baldwin	Principal	Cambridge High School. (Courses at Harvard)*	Sept. 1882
Agnes L. Tracy	7	Cambridge High School. (Radcliffe College, 3 years)	Oct. 1904
Catherine G. Kelley	6	Boston University, A.B.	Sept. 1908
Helen G. Linehan	5	Trinity Coll., Washington, A.B.°	Sept. 1909
Frances W. Dawson	4	Bradford Academy. (Special Courses)	Sept. 1902†
Elizabeth G. Nelligan	4–3	(Attended Salem Normal School)°	Dec. 1899
Mary A. Parsons	2	Private High School. (Attended Wellesley College)°	Mar. 1891
Grace C. Stedman	1	Cambridge High School. Kindergarten Training School	May 1896
Boardman School			
Elizabeth J. Karcher	Principal	Cambridge High School. (Special Courses)*	May 1881
Blanche M. Gould	3	Colby Academy, N. H. (Boston University, $2\frac{1}{2}$ years)°	Oct. 1904
Malvina M. Joslin	2	Northfield, Vt., High School	May 1891
Lucy A. Roper	2	Salem Normal School°	Sept. 1907
Pauline V. Casey	2	Framingham Normal School°	Sept. 1910
Ruth M. Craig	1	Kindergarten Normal School°	Sept. 1910
Mabel E. Blake	1	North Andover High School	Jan. 1892
Jennie E. Brooks	1	Salem Normal School°	Sept. 1910
Cushing School			
Maude A. Deehan	Prin. 2	Portland, Me., Normal School. (Special Courses)	Dec. 1893
Sarah C. McManama	1	Bridgewater Normal School°	Sept. 1907
Ellis School			
Edward O. Grover	Master	Adelphian Academy. Phillips Academy. (Course at Harvard)	Jan. 1879
Nellie A. Hutchins	9	Cambridge High School*	Sept. 1874
Caroline L. Blake	9	Wheaton Seminary	Sept. 1894
Adelaide G. Bunker	9	Bridgewater Normal School	Nov. 1902
Ernest Libby	8	Bridgewater Normal School. (Attended Chicago University)	Sept. 1906
Charlotte L. Griswold	8	New Britain Normal School	Sept. 1894
Louise H. Griswold	8	Terryville High School	Sept. 1893
Edith T. Bates	7	Framingham Normal School	Sept. 1909
Emma A. Faulkner	7	(Attended Keene, N.H., High School)	Oct. 1887

* Attended the Cambridge Training School.
° Attended the Wellington Training School.
† Taught previous to this and resigned.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Ellis School—Continued			
Josephine C. Wyman	7	Farmington, Me., Normal School	Apr. 1903
Flora C. Ingraham	6	Providence Normal School	Oct. 1888
Mary A. Stephenson	6	Bridgewater Normal School	Sept. 1898
Sarah W. Mendell‡	5	Tabor Academy. (Attended Quincy Training School)	Feb. 1901
Ellen J. Hunt	4	Salem Normal School	June 1883
Felton School			
C. Florence Smith	Prin. 3	Boston Normal School. (Harvard Summer School)°	Jan. 1888
Marcia R. Bowman	2	Framingham Normal School°	Sept. 1895
Carrie H. Smith	2	Cambridge High School*	Jan. 1875
Eleanor M. Stevens	1	Bangor, Me., Normal School°	Oct. 1903
Fletcher School			
George B. Colesworthy	Master	Bowdoin College, A.B. Harvard University, A.B.	Sept. 1903
Nellie A. Coburn	9	Lowell High School. (Attended Private Seminary)	Sept. 1901
Mary N. Flewelling	8	Salem Normal School°	Oct. 1904
Susan L. Senter	7	Medway High School°	Sept. 1898
Mary B. Cole	7–6	Radcliffe College, A. B.°	Sept. 1906
Emma G. Wentworth	6	Salem Normal School°	Oct. 1902
Frances E. Higgins	5	Cambridge High School	Sept. 1893†
Gertrude M. Webster	5	N. H. Training School. (Attended Normal School)	Apr. 1905
Mary I. Chapin	4	(Attended Indiana Normal School)	Oct. 1904
Elmira F. Hall	4	Cambridge High School°	May 1897†
Gertrude M. Baker	3	Radcliffe College, A. B.°	Sept. 1905
Martha B. Perkins	3	Salem Normal School	Sept. 1904
Marion Prescott	2	Cambridge English High School°	Oct. 1898
Eva A. Taylor	2	Cambridge High School°	May 1886
Mabel A. Gauthier	1	Salem Normal School°	Dec. 1907
Hattie A. Thayer	1	Boston Normal School°	Sept. 1896†
Gannett School			
Mary A. Rady	Prin. 1	Normal School and School of Expression. (Special Courses)	Sept. 1880
Gertrude T. Sullivan	3	Salem Normal School°	Dec. 1902
Margaret F. Sanderson	2	Salem Normal School°	Nov. 1900
Annie M. Billings	2–1	Cushing Academy. (Attended Quincy Training School)	May 1893
Gore School			
Mary E. Mulloney	Principal	Cambridge Training School. (Special Courses)	Sept. 1878
Minnie A. Doran	3	Salem Normal School. (Special Courses)°	Sept. 1895
Anastasia R. Peters	3	Newton High School. (Special Courses)°	Oct. 1892
Nora E. Reardon	3	Salem Normal School°	Sept. 1900
Mary L. Donovan	2	Cambridge English High School. (Salem Normal Sch., 2 yrs.)°	Dec. 1905

* Attended the Cambridge Training School.
° Attended the Wellington Training School.
† Taught previous to this and resigned.
On leave of absence for study or travel in accordance with the Rules of the School Committee.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Gore School—Continued			
Katherine L. McElroy	2	Salem Normal School	May 1888
Julia G. McHugh	2	Salem Normal School°	Oct. 1894
Anna E. Callahan	1	Salem Normal School	Sept. 1883
Catherine L. Dinneen	1	Salem Normal School°	Dec. 1908
Agnes K. Geary	1	Salem Normal School°	Jan. 1909
Kate A. Hegarty	1	Coburn, Me., Classical Institute. (Special Courses)	Sept. 1896
Harvard School			
William L. MacGregor	Master	Richmond, N.S., High School. (Attended Hyannis Normal Sch.)	Sept. 1906
Margaret B. Wellington	9	Wayland High School	Sept. 1868
Estella J. French	9	Cambridge High School. (Special Courses)*	Sept. 1872
Hortense O. Young	8	Fall River High School	Sept. 1883
Gertrude P. McCusker	8	Salem Normal School°	Sept. 1907
Honora F. O'Brien	8	Gloucester High School. (Attended Boston Normal Sch.)	Sept. 1909
Addie L. Bartlett	7	Castine, Me., Normal School. (Special Courses at Harvard)	Sept. 1890
Waitie M. Nash	7	Bates College, Me. (Special Courses at Tufts and Radcliffe)	Dec. 1902
Lucy E. Sullivan	7	Framingham Normal School	Nov. 1909
Frances Fabyan	6	Cambridge High School*	Jan. 1878
Annie M. Street	6	Westfield Normal School. (Attended Summer Institute)	Sept. 1889
Laura L. Parmenter	6	Cambridge Latin School. (Attended Summer Normal School)°	Sept. 1898
Margaret M. Fearns	5	Salem Normal School°	Mar. 1897
Annie B. Lowell	5	Portland, Me., Normal School	Apr. 1898
Carolyn E. MacDonald	4	Salem Normal School°	Jan. 1909
Louise C. Patterson	4	Northampton High School. (College work at Harvard)	Dec. 1892
Elizabeth L. Setchell	4	Salem Normal School	Sept. 1888†
Houghton School			
James E. White	Master	Bridgewater Normal School	Jan. 1906
Blanche E. Townsend‡		Salem Normal School	Sept. 1900
Alice P. Fay	9	(Attended Wellesley College)°	Sept. 1888
Winifred L. Kinsley	8	Boston Normal School°	Sept. 1888†
Mary L. Ells	7	Hanover Academy. School of Science, Boston	Oct. 1886
Margaret J. Penney	7–6	Cambridge High School*	Apr. 1882
Hattie Shepherd	6	Cambridge High School*	Sept. 1882
R. Emily Penney	5	Salem Normal School	June 1893
Katharine F. Callahan	5–4	Salem Normal School°	Nov. 1903
Grace S. Beckwith	4	Westfield Normal School°	Sept. 1904§
Mary G. Snow	4	Salem Normal School°	Sept. 1905
Elizabeth A. Tower	3	Cambridge High School*	Dec. 1870
Mary A. Burke	3–2	Salem Normal School°	Sept. 1885
Margaret L. Cosgrove	2	Boston Normal School°	Sept. 1909
Amanda M. Alger	1	Cambridge High School*	May 1880
Catherine M. Doran	1	Salem Normal School°	Sept. 1904

* Attended the Cambridge Training School.
° Attended the Wellington Training School.
† Resigned for one year and was reappointed.
‡ On leave of absence for study or travel in accordance with the Rules of the School Committee.
§ Taught previous to this and resigned.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Kelley School			
H. Warren Foss	Master	Colby College, Me., A.B.	Sept. 1904
Catharine A. McLean	9	Salem Normal School°	Oct. 1899
Ethel I. Murch	8	Cambridge English High School. (Summer School)°	Oct. 1899
Emma J. Houlahan	7	Salem Normal School°	Sept. 1903
Esther D. Paul	7–6	Boston University, A.B.°	Oct. 1899
Ellen A. Kidder	6	(Teachers' Courses and Summer Courses at Harvard)°	Oct. 1890
Carrie L. Power	5	Salem Normal School°	Oct. 1899
Maude M. Dutton	5	Bridgewater Normal School°	Oct. 1899
Mary L. Feeny	4	Salem Normal School°	Sept. 1907
Margaret B. McCullough	4	Salem Normal School°	Sept. 1908
Mary E. Regan	4–3	Salem Normal School°	Oct. 1899
Julia M. Horgan	3	Salem Normal School°	Sept. 1908
Mary E. Moran	3–2	Salem Normal School°	Oct. 1904
Ellen T. Carroll	2	Kindergarten Training School°	Sept. 1907
Olive L. Cook	1	Framingham Normal School	Apr. 1905
Eva G. Oakes	1	Warren High School. (Martha's Vineyard Summer School, 5 years)	Oct. 1898
Lassell School			
Frances E. Whoriskey	Prin. 2	Cambridge Training School	Apr. 1881
Rose V. Collier	3	Boston Normal School	Sept. 1888
Elizabeth B. Gahm	2–1	Cambridge High School*	Sept. 1882
Mary B. Whoriskey	1	Kindergarten Training School°	Sept. 1895
Lowell School			
Eusebia A. Minard	Prin. 3–2	Truro, N. S., Normal School	Oct. 1893
Cora B. Poole	5–4	Salem Normal School°	Feb. 1906
Agnes J. McElroy	1	Salem Normal School°	Dec. 1891
Merrill School			
Louise W. Harris	Principal	Cambridge High School. (Special Courses)*	Jan. 1876
Julia M. Davis	3	Baltimore High School. (Maryland Normal School, 1 year)°	May 1900
Katharine Pendergast	3	Warren High School°	Sept. 1909
Henriette E. de Rochemont	2	Portsmouth, N. H., Normal School	Sept. 1894
Nellie F. Walker	2	Kennebunk, Me., High School. (Attended Com. College)	Sept. 1899
Marion B. Magwire	1	Framingham Normal School°	June 1894
Gertrude S. Thayer	1	Salem Normal School°	Sept. 1903
Morse School			
Mary A. Townsend	Master	Farmington, Me., Normal School	Apr. 1882
Mary E. Towle	9	Westfield Normal School	Feb. 1874
Clintina E. Curtis	8	Plymouth, N. H., Normal School	Dec. 1907
Ida J. Holmes	8–7	Rhode Island Normal School	Sept. 1895
Florence E. Hunter	7	Castleton, Vt., Normal School	Feb. 1900
Anna A. O'Connell	6	Bridgewater Normal School°	Sept. 1900
Lucy M. Soulée	6–5	Everett High School	Sept. 1893

* Attended the Cambridge Training School.
° Attended the Wellington Training School.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Morse School—Con.			
Elizabeth H. Richards	5	Robinson Seminary, N. H.°	Jan. 1899
Alice E. May	4	Bridgewater Normal School	Oct. 1893
Mary E. Warren	4	Lawrence Academy, Groton	Jan. 1902
Bertha J. Waldron	3	Susquehanna Collegiate Institute	Sept. 1904
Edith M. Carman	3–2	Salem Normal School°	Dec. 1904
Elizabeth J. Baldwin	2	Boston Normal School°	Jan. 1886
Christina R. Denyven	1	Bridgewater Normal School°	Jan. 1888
Grace E. Lally	1	Boston Normal School°	Jan. 1909
Otis School			
Luella M. Marsh	Principal	Cambridge High School*	Feb. 1884
Gertrude H. Glavin	3	Bridgewater Normal School	Nov. 1909
Margaret Sullivan	3	Salem Normal School°	Oct. 1893
Julia S. Lewis	2	Framingham Normal School°	Nov. 1909
Julia A. Walsh	2	Salem Normal School°	Sept. 1910
Josephine M. Doherty	2–1	Cambridge High School*	Sept. 1877
Frances Allen	1	Cambridge High School*	Jan. 1873
Anna N. Sullivan	1	Boston Normal School°	Mar. 1901
Parker School			
Mary A. Knowles	Prin. 3	Howe High School, Billerica.	
	3	(Special Courses)	Sept. 1897
Mattie S. Cutting	3	(Attended Worcester Normal School)	Oct. 1898
Helena Lyons	3–2	Framingham Normal School°	Sept. 1910
Irene M. Fitzgerald	2	Salem Normal School°	Sept. 1909
Rose M. O'Toole	1	Fitchburg Normal School. (Post-graduate Course, 2 yrs.)	Jan. 1910
Agnes Marchant	1	Mt. Holyoke Seminary. Bridgewater Normal School. (Special Courses)°	Oct. 1894
Peabody School			
H. Herbert Richardson	Master	Tufts College, A.B.	Sept. 1904
Charlotte A. Ewell	9	Cambridge High School	Mar. 1868
Katherine L. Carr	9	Potsdam, N. Y., Normal School	Nov. 1901
Anna F. Bellows	8	Lancaster Academy	Sept. 1889
Alice M. Tufts	8	Salem Normal School	Sept. 1896
Isadore M. Thompson	7	Maine Wesleyan Seminary°	Sept. 1904
Susan C. Allison	6	Cambridge High School. (Attended Boston Normal Sch.)°	Sept. 1889
Bernice E. Bartlett	6–5	Emerson School of Oratory°	Sept. 1907
Madeleine Wood	5	Radcliffe College, A.B.	Sept. 1907
Tina M. King	4	Bridgewater Normal School°	Sept. 1908
Blanche C. Trefethen	4	Normal Dept. Robinson Seminary°	Mar. 1895†
Anna H. Welsh	3	(Attended Wellesley College, 2 years)°	Sept. 1901
Dora Trefethen	2	Normal Dept. Robinson Seminary°	Apr. 1899
Susan E. Wyeth	2	Cambridge High School	Mar. 1869
Clara A. Goodere	1	Fitchburg Normal School	Jan. 1910
Edith F. Pulsford	1	Kindergarten Training School°	Sept. 1910

* Attended the Cambridge Training School.
° Attended the Wellington Training School.
† Resigned for one year and was reappointed.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Putnam School			
Frederick B. Thompson	Master	Teachers' School of Science. Bridgewater Normal School	Nov. 1894
Maud M. Mixer	9	Teachers' School of Science. Bridgewater Normal School	Sept. 1905
Eliza S. Paddack	9	Nantucket High School	Sept. 1880
Sarah M. Grieves	8	Cambridge High School*	Oct. 1882
Margaret F. O'Keefe	8	Salem Normal School°	Sept. 1900
Harold B. Blazo	8–7	Harvard University, A.B.	Sept. 1910
Nellie A. Kerrigan	7	Salem Normal School°	Oct. 1904
Annie M. R. Sturtevant	7	Wellesley College, A.B.°	Dec. 1907
Martha Chisholm	6	Gloucester Training School	Sept. 1906
Anna L. P. Collins	6	(Attended Plymouth, N. H., Normal School)	Sept. 1893
Jane E. McKearin	6	Wellesley College, A.B.	Sept. 1907
Minnie F. Wilson	5	Salem Normal School°	May 1900
Mary A. Carmichael	5–4	Salem Normal School°	Feb. 1889
Elsie H. Cooter	4	Salem Normal School°	Sept. 1908
Annie A. Trelegan	4	Salem Normal School°	Dec. 1891
Reed School			
Margaret T. Burke	Prin. 2	Salem Normal School°	May 1886
Alice W. Gaughan	3	Salem Normal School°	Mar. 1911
Clara W. Ruggli	2	Bridgewater Normal School. (Special College Courses)°	Sept. 1900
Julia A. Robinson	1	High School. (Special Courses)	Apr. 1886
Roberts School			
W. Mortimer MacVicar	Master	Acadia College, N. S., A.M.	Sept. 1900
Sara A. Bailey	9	Caledonia Academy	May 1884
Caroline M. Williams	8	Cambridge High School*	Sept. 1880
Gertrude A. White	8–7	Radcliffe College, A.B.	Sept. 1906
John J. Salmon	7	Holy Cross College, A.B. Clark University, A.M.	Sept. 1910
Ida G. Smith	7	(Attended Private High School)	Jan. 1875
Bessie W. C. Fuller	6	(Vermont Academy, 2 yrs. Hyannis Normal, 2 summers)	Sept. 1909
Evelyn B. Kenney	6	Maine Normal School	Nov. 1886
Ada M. Litchfield	6	Boston Normal School°	May 1891
Mary M. Brigham	5	Winchendon High School	Apr. 1882
Anna E. Lally	5	Framingham Normal School	Nov. 1910
Mary E. Quirk	5	Salem Normal School°	Feb. 1910
Mary P. Blair‡	4	(Attended Park College)	Sept. 1882
Elizabeth M. Breslin	4	Salem Normal School°	Mar. 1902
Anna E. Dailey	4	Salem Normal School°	Sept. 1910
Marjorie H. Lenox	4	Salem Normal School°	Sept. 1906
Sarah E. Magurn	4	Framingham Normal School°.	Sept. 1907
Lucy S. Carter	3	Lowell Normal School	Apr. 1910
Russell School			
Arthur C. Wadsworth	Master	Harvard Univ., B.S. Wooster, Ohio, Univ., A.M., Ph.D.	Sept. 1897
Mary S. Bingham	9	Salem Normal School. (Special work at Radcliffe)	Sept. 1904

* Attended the Cambridge Training School.
° Attended the Wellington Training School.
‡ On leave of absence for study or travel in accordance with the Rules of the School Committee.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Russell School—Con.			
Louise I. MacWhinnie	9–8	Cambridge Latin School. (Special work at Radcliffe and Boston Univ.)°	Sept. 1903
Fannie P. Browning	8	Fitchburg High School	Sept. 1880
Helen M. Westgate	8–7	Bridgewater Normal School	Nov. 1909
Ida J. Mahoney	7	Framingham Normal School°	Apr. 1903
Adelaide D. Billings	6	Bridgewater Normal School	Sept. 1907†
Faith Foxcroft	6	Mt. Holyoke College, B.A.°	Nov. 1905
H. Maud Maclean	5	Univ. of New Brunswick, B.A.°	Mar. 1896
Josephine F. Rowe	4	Salem Normal School°	Mar. 1909
Mary E. Sullivan	3	Salem Normal School°	Feb. 1909
Alice V. Connelly	2	Salem Normal School°	Sept. 1908
Carrie J. Allison	1	Cambridge High School. (Private School)°	Sept. 1896
Shepard School			
Evelyn J. Locke	Principal	High School. (Attended Boston Training School)	Jan. 1880
Alice M. Gage	7	High School. (Mt. Holyoke College, 2 years)	Mar. 1899
Mary F. Calnane	6	Salem Normal School	Dec. 1896
Florence M. Dudley	6	Salem Normal School°	Dec. 1897
Dora Leadbetter	5	Framingham Normal School. (Courses at Harvard)	Sept. 1906
Theresa H. Mahoney	5	Framingham Normal School°	Sept. 1898
Nettie I. Haff	4	Salem Normal School°	Sept. 1906
Elizabeth J. O'Keefe	4	Kindergarten Training School°	Oct. 1905
Anna E. Welch	4	Salem Normal School°	Sept. 1904
Lillian M. Cuddy	3	Salem Normal School°	Dec. 1904
Ellen T. O'Keefe	3	Boston Normal School°	Sept. 1903
Sleeper School			
Sarah J. Gunnison	Principal	Cambridge High School (Special Courses)*	Sept. 1880
Mary A. Macklin	6	Salem Normal School°	Dec. 1902
Melissa M. Lloyd	5	Charlestown High School. (Special Courses)	Sept. 1893†
Evelyn M. Dormer	4	Salem Normal School°	Dec. 1897
Butella E. L. Conland	3	Randolph, Vt., Normal School	Dec. 1898
Helena Murphy	3–2	Salem Normal School°	Mar. 1908
Mary C. Ward	2	Salem Normal School°	Mar. 1911
Mary R. Harrington	1	Salem Normal School°	Oct. 1910
Tarbell School			
Josephine Day	Prin. 3	Farmington, Me., Normal School°	Sept. 1897
Millie A. Isaac	3–2	Salem Normal School°	Sept. 1909
Carrie P. Pierce	2	Gloucester High School. (Salem Normal School, 1 year. Special Courses)°	Oct. 1890
Helene M. Seils	1	Salem Normal School°	Sept. 1909

* Attended the Cambridge Training School.
° Attended the Wellington Training School.
† Taught previous to this and resigned.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Taylor School			
Ella R. Avery	Principal	Cambridge High School. (Special Courses)	Apr. 1881†
Mary A. Boland	5	Salem Normal School°	Jan. 1898
Emma M. Goodwin	5	Farmington, Me., Normal School	Feb. 1910
Alice G. Dacey	4	Salem Normal School°	Jan. 1909
Winifred B. Goodwillie	4	Salem Normal School°	Mar. 1906
Alice V. Carmichael	3	Salem Normal School°	Mar. 1908
Lillian W. Davis	3–2	Maryland Normal School°	Dec. 1902
Mary A. Maguire	2	Lowell Normal School°	Sept. 1903
Emily M. Dowd	2–1	Lowell Normal School°	Nov. 1905
Annie A. Rea	1	Castine, Me., Normal School	Sept. 1909
Thorndike School			
James Dugan	Master	Amherst College, A.B.	Jan. 1910
Harriet A. Townsend	9	Framingham Normal School	Sept. 1887
Lydia A. Whitcher	9–8	Tilton Seminary	Sept. 1869
Ellen M. Plympton	8	Salem Normal School	Sept. 1898†
Mabel A. Short	7	Smith College, A.B.°	Dec. 1904
Laura S. Westcott	7	Boston Normal School	Sept. 1884
Jennie W. Cronin	6	Boston Normal School°	Oct. 1902
Lillian H. Kenney	6	Salem Normal School°	Mar. 1901
Mary E. Bousquet	5	Salem Normal School°	Sept. 1909
Grace W. Fletcher	5	Cambridge High School*	Feb. 1874
Clare M. Sullivan	4	Salem Normal School°	Sept. 1910
Gertrude R. O'Hara	4	Salem Normal School°	Oct. 1910
Ethel M. MacLeod	4	Radcliffe College, A.B.°	Mar. 1906
Webster School			
John D. Billings	Master	Bridgewater Normal School. Boston Sloyd Training School. Tufts College, A.M. (Honorary)	Sept. 1872
James H. Armstrong	9	Harvard College, A.M. Bridgewater Normal School	Sept. 1909
Alice C. Phinney	9	(Attended Bridgewater Normal School)	Oct. 1881
Martha N. Hanson	9	(Attended N. H. Normal School)	Mar. 1890
Ada A. Billings	8	Bridgewater Normal School	Sept. 1889
Charlotte M. Chase	8	Cambridge Training School	Sept. 1873
Josephine Hills	8	Framingham Normal School	Sept. 1893
Harriette E. Shepard	8	Salem Normal School°	Oct. 1890
Gertrude B. Duffy	7	Salem Normal School. (English Courses at Harvard)°	Apr. 1902
Mary E. Murray	7	Cambridge Latin School. (Radcliffe College, 1 year)°	Sept. 1908
Nora P. Nason	7	Gorham, Me., Normal School	Dec. 1906
Olive L. Slater	7	Westfield Normal School	Sept. 1899
Fanny F. Curtis	6	Bridgewater Normal School	Mar. 1898
Minnie V. Reid	6	Boston Normal School°	Sept. 1888
Edna M. Smith	6	Salem Normal School°	Nov. 1910
Mabel T. Ashley	5	Framingham Normal School	Sept. 1896

* Attended the Cambridge Training School.
° Attended the Wellington Training School.
† Taught previous to this and resigned.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Webster School—Con.			
Marion Beane	5	Mt. Holyoke College, A.B.	Jan. 1911
Alice M. Colbert	5	Boston Normal School°	Sept. 1909
Honora A. Connell	5	Salem Normal School°	Sept. 1910
Katharine M. Greene	5	Salem Normal School°	Sept. 1904
Frances T. Haley	5	Bridgewater Normal School°	Sept. 1910
Fanny M. Field	4	Bridgewater Normal School	Sept. 1909
Gertrude I. Johnson	4	Worcester Normal School	Sept. 1901
Gertrude A. Kenney	4	Bridgewater Normal School°	Dec. 1906
Anna G. Scannell	4	Salem Normal School	Sept. 1905
Wellington School			
Herbert H. Bates	Master	Westfield Normal School	Oct. 1883
Mary I. Vinton	Supervisor	Salem Normal School	Mar. 1881
Margaret Kidd	Supervisor	Cambridge High School*	Sept. 1880
Carrie H. Stevens	8	Farmington, Me., Normal School	Nov. 1894
Grace F. Chamberlain	8	Framingham Normal School	Apr. 1903
Nina L. Kendall	8–7	Randolph, Vt., Normal School	Sept. 1909
Marion B. Alley	7	Radcliffe College, A.B.°	Sept. 1909
Eleanor E. O'Brien	7	Salem Normal School°	Sept. 1909
Ellen A. Sullivan	Clerk	Salem Normal School°	Sept. 1905
Annie W. Cooper	Substitute	Salem Normal School°	
Anna F. Moran	Substitute	Kindergarten Training School°	
Grace I. Nelligan	Substitute	Salem Normal School°	
Jennie L. Powell	Substitute	Salem Normal School°	
Ethel M. S. Smith	Substitute	Kindergarten Training School°	
Training Class			
Willard School			
Katharine E. Hayes	Principal	Framingham Normal School	Sept. 1902
Lucy F. Cline	3	Kindergarten Normal School°	Oct. 1910
Mary E. G. Harrington	3	Cambridge High School*	Apr. 1881
Eliza D. Watson	3	High School. (Course at Boston University)	Sept. 1888†
Annie M. Sands	3–2	Bridgewater Normal School°	Nov. 1905
Elizabeth M. Crowley	2	Salem Normal School°	Dec. 1901
Katherine M. Lowell	2	High School	Sept. 1868
Grace R. Woodward	2	Cambridge High School*	Oct. 1874
Agalena Aldrich	1	Cushing Academy. (Wellesley College, 2 years)°	Sept. 1901
Mary A. Flynn	1	Framingham Normal School	Feb. 1910
Ella F. Gulliver	1	Eastern Normal School, Me.	Apr. 1886
Agnes L. Moran	1	Salem Normal School°	Sept. 1909
Wyman School			
Addie M. Bettinson	Prin. 2	Cambridge High School*	Feb. 1872
Katherine L. Dolan	2	Salem Normal School°	Nov. 1898
Genevieve S. Flint	2–1	Worcester Normal School°	Nov. 1892
Mary H. Brooks	1	Bridgewater Normal School°	Sept. 1898
Jennie B. Ross	1	Salem Normal School°	Sept. 1903
Fresh Air School			
Anna P. Butler	Principal	Trinity Coll., Washington, A.B.°	Sept. 1909

*Attended the Cambridge Training School.
°Attended the Wellington Training School.
†Taught previous to this and resigned.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
KINDERGARTENS			
Boardman			
Florence Rice	Head Kind.	Kindergarten Training School. (Radcliffe College, 2 years)	Sept. 1899
Dorothea Cutler	Asst.	Kindergarten Training School°	Sept. 1909
Corlett			
Annie M. Dodd	Head Kind.	Kindergarten Training School	Sept. 1897
Frances W. Roberts	Asst.	Kindergarten Training School	Feb. 1905
Gannett			
Carrie E. Shepherd	Head Kind.	Kindergarten Training School. (Special Courses)	Sept. 1897
Gore			
Selma E. Berthold	Head Kind.	Kindergarten Training School	Sept. 1889
Houghton			
Edith L. Lesley	Head Kind.	Kindergarten Training School	Sept. 1897
Olive M. Lesley	Asst.	Kindergarten Training School	Mar. 1899
Lowell			
Melinda Gates	Head Kind.	Kindergarten Training School . (Berlitz School)	Sept. 1889
Merrill			
Caroline A. Leighton	Head Kind.	Kindergarten Training School. (Special Courses)	Sept. 1896
Gertrude L. Bunton	Asst.	Kindergarten Training School°	Oct. 1910
Parker			
Leonice S. Morse	Head Kind.	Kindergarten Training School	Dec. 1897
Ruth L. Pike	Asst.	Kindergarten Training School°	Sept. 1909
Peabody			
Julia L. Frame	Head Kind.	Kindergarten Training School. (Post-graduate Courses)	Nov. 1898
Irene L. Phelps	Asst.	Kindergarten Training School°	Apr. 1904
Shaw			
Harriette E. Ryan	Head Kind.	Kindergarten Training School. (Post-graduate Courses)	Sept. 1889
Ivy M. Ranney	Asst.	Kindergarten Training School°	Sept. 1908
Sleeper			
Mabel S. Adams	Head Kind.	Kindergarten Training School	Oct. 1893
Taylor			
Mary F. Leland	Head Kind.	Kindergarten Training School	Mar. 1896
Anna D. Francis	Asst.	Kindergarten Training School°	Jan. 1906
Wellington			
Gertrude M. Gove	Head Kind.	Kindergarten Training School	May 1893
Carita B. Dickson	Asst.	Kindergarten Training School	Apr. 1907

° Attended the Wellington Training School.

TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
Willard A. M.			
Alice V. McIntire†	Head Kind.	Kindergarten Training School	Sept. 1897
Marion L. Akerman	Act. Head K.	Kindergarten Training School°	Apr. 1900
Helen N. Hicks	Asst.	Kindergarten Training School°	Sept. 1910
Willard P. M.			
Jennie S. Clough	Head Kind.	Kindergarten Training School	Sept. 1897
Eva C. Katon	Asst.	Kindergarten Training School	Dec. 1903
Wyman			
Clara A. Hall	Head Kind.	Kindergarten Training School. (Special Courses)	May 1892
Louise M. Clark	Asst.	Kindergarten Training School°	Sept. 1910
Music			
John B. Whoriskey	Director	(Special Courses in vocal and instrumental music)	Feb. 1911
Annie R. Hooper	Asst.	Robinson Seminary. (Attended Boston Conserv. of Music)	Jan. 1907
Drawing			
Peter Roos	Director	(Courses in Sweden and in the Boston Normal Art School)	Oct. 1896
Lucia N. Jennison	Asst.	Worcester Normal School. Boston Normal Art School	Dec. 1893
Physical Education			
Ernst Hermann	Director	German College. Boston Normal School of Gymnastics	Sept. 1910
Manual Training			
Jennie M. Cilley	Ele. Grades	Maine Normal School. Boston Sloyd Training School	Sept. 1909
Guido L. Carpi	Ele. Grades	Boston Normal Art School. (Special Courses)	Sept. 1910
Lester W. Ladd	Ele. Grades	Harvard University, B.A.S.	Sept. 1910
Harold E. Mason	Ele. Grades	Lester Academy. (Tufts College $3\frac{1}{2}$ yrs.)	Apr. 1910
Abraham M. Schoenfeld	Ele. Grades	Rindge Manual Training School. (Harvard University, 2 yrs.)	Sept. 1910

° Attended the Wellington Training School.
† On leave of absence for study or travel in accordance with the Rules of the School Committee.

TABULAR VIEW—Concluded.

Teachers of Sewing	Agnes Gordon, Director
	Katharine A. Burke
	Nancy T. Dawe
	Maude E. Delorme
	Alice H. Nay
Permanent Substitute	Mary A. Driscoll
Master Emeritus, Latin School	William F. Bradbury
Master Emeritus, Thorndike School	Ruel H. Fletcher
Unassigned Teachers:	
High School	Emma A. Scudder
Grammar Schools	Annie B. Josselyn
" "	Emily R. Pitkin
Primary Schools	Sally N. Chamberlain
" "	Ellen A. Cheney
" "	Georgianna P. Dutcher
" "	M. Elizabeth Evans
" "	Mary M. Gilman
" "	Ellen N. Leighton
" "	Frances E. Pendexter
" "	Mary E. Sawyer
" "	Abby S. Taylor

Superintendent of Schools	FRANK E. PARLIN
Supervisor of Primary Schools	MARY A. LEWIS
Secretary and Agent	SANFORD B. HUBBARD

Clerks	Constantine J. Church
	Mary A. L. Forrest
	Althea B. Frost
Truant Officers	Lucian S. Cabot
	William F. Donovan
	William H. Porter
	Thomas F. Riley
Porter	John H. Lemon

CHANGES IN TEXT-BOOKS

The following books have been recommended by the superintendent and adopted by the Board during the year from April 1, 1910, to April 1, 1911:—

For the Rindge Manual Training School. Holton's Shop Mathematics.

For the High Schools. Bailey's Beginners' Botany; Bacon's Im Vaterland; Davison's Human Body and Health, Advanced; Moores' Life of Abraham Lincoln; Myers' The Modern Age; Scudder's Historical Biography of George Washington; Valdes' Jose.

For the Elementary Schools. Walton and Holmes' Series of Arithmetics.

For all Schools. Webster's Series of Dictionaries.

SCHOOL COMMITTEE

1911–1912

PROFESSOR JOSEPH H. BEALE, LL.D., *President*

*PROFESSOR JOSEPH H. BEALE, 29 Chauncy Street
MR. FRED A. MCMENIMEN, 100 Winter Street
MR. CHARLES A. REYNOLDS, 229 Franklin Street
*JAMES B. VALLELY, ESQ., 9½ Roseland Street
MRS. FLORENCE LEE WHITMAN, 23 Everett Street

SANFORD B. HUBBARD, *Secretary and Agent*

Regular meetings of the School Committee are held on alternate Fridays, at eight o'clock P. M.

SUPERINTENDENT OF SCHOOLS

OFFICE, CITY HALL

FRANK EDSON PARLIN . . . . . 3 Forest Park

OFFICE HOURS

Office open: From 8 o'clock A. M. to 5 o'clock P. M., every week day except Saturday; Saturday, from 8 o'clock A. M. to 12 o'clock M.

Superintendent's hours: Regularly from 4 to 5 o'clock P. M., every school day except Wednesday. Usually from 8.30 to 9.30 o'clock A. M.

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* Elected at large.

SCHOOL CALENDAR

1911

The Winter Term: January 3 to March 24
The Spring Term: April 3 to June 23
The Fall Term: September 13 to December 22

1912

The Winter Term: January 2 to March 29
The Spring Term: April 8 to June 28

SCHOOL HOLIDAYS

Columbus Day, the twelfth of October; Thanksgiving Day, with the preceding day and the day following; the twenty-second of February; Good Friday; the nineteenth of April; Memorial Day; the seventeenth of June; and in addition to these, for the high schools, Commencement Day at Harvard College.

REPORT OF THE CITY TREASURER

City of Cambridge, Mass.,
Office of City Treasurer, April 1, 1911.

To the Honorable, the City Council:—

In the following pages I submit a detailed report of the receipts and expenditures of the public funds by the Treasury Department, during the year ending March 31, 1911, including an account of all bonded and temporary loans negotiated in said year, also a detailed account of official fees received, and reports on the "Cemetery Fund" and "Sarah E. Russell Fund."

Very respectfully,

WM. W. DALLINGER,
City Treasurer.

City of Cambridge in Account Current from April 1, 1910, to

Dr.

To authorized payments charged to City accounts:—

Assessments:—		
Street Sprinkling		
Taxes, 1909—Abatements	$	2 92
Taxes, 1910—Abatements		182 31
Moth Extermination:—		
Taxes, 1910—Abatements		9 35
Assessors' Department:—		
Salaries		12,365 05
General Expenses		1,692 26
Assessors' Plans		199 09
Auditing Department:—		
Salaries		4,001 21
General Expenses		659 89
Board of Appeal		34 12
Boston Bridges:—		
Salaries and Labor		10,113 52
General Expenses		6,532 95
Cambridge Bridge		28,591 81
Cambridge Bridge Approach		120 00
Western Avenue Bridge—Repairing		1,034 64
River Street Bridge—Repairs		3,201 62
Harvard Bridge—Special Appropriation		346 98
Celebrations:—		
Fiftieth Anniversary First Volunteers		1,000 00
Independence Day		782 37
Labor Day		299 90
Memorial Day		1,200 00
Cemetery Department:—		
Salaries		15,449 37
General Expenses		1,849 02
Grading		999 25
Trustee of Cemetery Fund		2,723 25
Deed Account		10 00
Charles River Dam Apportionment		6,984 05
City Clerk's Department:—		
Salaries		7,077 81
General Expenses		1,748 22
Classified Index		122 42
Renovating Public Records		160 00
City Council Expenses		5,443 26
City Messenger's Department:—		
Salaries		1,749 00
General Expenses		362 05
Postage and Stationery		1,687 45
Amount carried forward		$118,735 14

MARCH 31, 1911 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER

Cr.

By Receipts as follows:—		
Assessments:—		
Sewers	$	3,409 11
Sidewalks		10,842 26
Street Sprinkling:—		
Taxes—1908		207 92
Taxes—1909		2,225 60
Taxes—1910		32,401 18
Moth Extermination:—		
Taxes—1908		15 39
Taxes—1909		145 57
Taxes—1910		1,417 50
Boston Bridges		15 72
Boston Elevated Street Railway—Construction of Cambridge Bridge...		257,500 00
Cemetery Department:—		
Burials, Sales of Lots, etc.		21,774 84
Trustee of Cemetery Fund		2,723 25
Deed Account		10 00
City Clerk's Department		1,424 12
City Council Expenses		14 45
City Messenger's Department:—		
Postage and Stationery		1,677 94
City Real Estate		11,400 00
Election Expenses:—		
Registrars of Voters		1 34
Electrical Department:—		
Wire Account		691 40
Street Lighting		7 54
Fire Department		25 41
Health Department		10,298 91
Modified Milk		526 99
Inspector of Buildings:—		
General Expenses		7 00
Interests		22,820 19
Interest on Water Loan		455 33
Land for Playgrounds		314 79
Law Department		1,000 00
Licenses		4,812 50
Amount carried forward		$388,166 25

CITY OF CAMBRIDGE IN ACCOUNT CURRENT FROM APRIL 1, 1910, TO

Dr.

Amount brought forward	$118,735 14
Civil Service Registration	330 20
Clerk of Committees' Department:—	
Salaries	4,053 00
General Expenses	289 53
Damages to Persons and Personal Property	4,388 73
Election Expenses:—	
City Clerk	8,276 06
Polling Places	2,325 06
Registrars of Voters	4,588 24
Electrical Department:—	
Wire Account:—	
Salaries	10,698 00
General Expenses	3,849 90
Emergency Fund	166 79
Fire Alarm Signal Boxes	677 50
Street Lighting:—	
Salaries	1,000 00
General Expenses	79,723 18
Engineering Department:—	
Salaries	8,404 44
General Expenses	769 25
Fire Department:—	
Salaries	109,325 75
General Expenses	21,813 48
Special Appropriation, Engine No. 7	1,600 00
Greater Boston Real Estate and Ideal Home Exposition	200 00
Health Department:—	
Salaries	13,490 66
General Expenses	13,224 03
Contagious Hospital—Construction	26,613 75
Diphtheria Hospital	7,307 06
Tuberculosis Camp	16,725 58
Inspection of Milk and Vinegar	2,241 92
Modified Milk	1,168 71
Indemnification of Police Officer	740 50
Inspector of Animals	835 43
Inspector of Buildings:—	
Salaries	5,371 56
General Expenses	831 71
Night Watchman	537 50
Interest	243,415 19
Interest on Park Loan	58,708 00
Interest on Water Loan	137,582 75
Amount carried forward	$909,348 60

MARCH 31, 1911 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER

Cr.

Amount brought forward	$388,166 25
Loan:—	
Cambridge Bridge	20,000 00
Cambridge Hospital	95,000 00
Municipal	8,000 00
Park	17,000 00
Playground	50,000 00
School House	125,000 00
Sewer	50,000 00
Street	114,800 00
Temporary	235,000 00
Water	16,500 00
Municipal Buildings	3,611 30
Overseers of the Poor:—	
City Farm	3,984 89
City Home	874 02
Hospital	599 88
Out-door Relief	2,729 21
House Offal	15,758 46
Park Department:—	
Construction	1,937 60
Maintenance	70 14
Cambridge Field and Shelter	415 18
Moth Extermination	128 31
Baths	895 35
Police Department	802 25
Court Fines	3,786 09
Premium Account	528 00
Central Library	5,757 01
Sale of Public Lands	1,984 00
School Department	5,067 33
Other School Committee Expenses	15 65
Sale of School House, Hilliard Street	7,048 50
Webster School House, Land and Building	8,000 00
Tuition, etc.	5,739 28
Sealer of Weights and Measures	973 51
Sewer Department:—	
Maintenance	471 82
Commissioners of Sinking Funds	566,000 00
State Aid	15,569 00
Street Department:—	
Edgestones and Sidewalks	1,052 90
Incinerator	87 10
Maintenance and Repairs	753 65
Street Sprinkling	262 79
Amount carried forward	$1,774,369 47

CITY OF CAMBRIDGE IN ACCOUNT CURRENT FROM APRIL 1, 1910, TO

Dr.

Amount brought forward	$909,348 60
Land Damages	15,227 07
Land for Playgrounds	47,830 35
Law Department:—	
Salaries	4,044 00
General Expenses	1,264 29
Licenses	107 00
Loan:—	
City	36,000 00
Sewer	16,000 00
Temporary	395,000 00
Water	508,000 00
Cemetery	7,000 00
Serial Water Bond	12,500 00
Mayor's Department:—	
Salaries	5,736 01
General Expenses	524 34
Militia and Armories	1,252 37
Municipal Buildings:—	
Salaries, Janitors and Others	11,834 69
General Expenses	10,039 83
Fire-proof Vaults, City Hall	4,760 25
Station 4, Alterations	200 00
Third District Court Room—Repairs	272 27
Overseers of the Poor:—	
City Farm:—	
Labor	3,499 04
Supplies	1,018 37
City Home:—	
Salaries	7,102 97
General Expenses	14,504 09
Hospital	1,675 95
Out-door Relief:—	
Salaries	3,887 95
General Expenses	23,185 34
City Physician	2,000 00
House Offal:—	
Labor	28,978 00
General Expenses	10,121 82
Park Department:—	
Construction	750 75
Completion of Rindge Field	585 50
River Parkway	1,020 90
Maintenance:—	
Salaries	2,300 00
General Account	958 84
Amount carried forward	$2,088,630 59

MARCH 31, 1911 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER

Cr.

Amount brought forward	$1,774,369 47
Taxes:—	
1905	68 00
1906	16 00
1907—Polls	204 45
Personal Estate	308 32
1908—Polls	678 00
Personal Estate	1,600 09
Real Estate	4,904 40
1909—Polls	6,000 00
Personal Estate	28,404 30
Real Estate	117,190 50
1910—Polls	31,414 00
Personal Estate	385,102 91
Real Estate	1,754,248 62
Old Taxes	88 22
Tax Lien Account	131 94
Tax:—	
Corporation	132,719 28
National Bank	18,469 97
Street Railway	74,100 10
Treasury Department	5,087 55
Water Department:—	
Construction:—	
General	1,207 99
Subway Construction	17,789 42
Maintenance:—	
Rates	389,253 73
Amount carried forward	$4,743,357 26

City of Cambridge in Account Current from April 1, 1910, to

Dr.

Amount brought forward	$2,088,630 59
Cambridge Field and Shelter	6,384 73
Commons, Squares and Public Grounds	4,213 55
Longfellow Park	250 00
Mill Pond	150 00
Moth Extermination	7,320 51
Removal of Dead Trees	2,998 26
Rindge Field	1,678 87
Shower Baths and Heating Apparatus	1,021 06
River Parkway	6,926 35
Sand Gardens	199 56
Shade Trees	4,294 98
Baths	1,631 80
Playground Commission:—	
Salaries	105 00
General Expenses	438 01
Police Department:—	
Salaries	165,083 33
General Expenses	6,148 82
Premium Account	528 00
Central Library:—	
Salaries	12,579 83
General Expenses	9,835 92
East Cambridge Branch Library:—	
Salaries	1,005 46
General Expenses	1,607 31
North Cambridge Branch Library:—	
Salaries	1,509 96
General Expenses	1,955 39
School Department:—	
Salaries	451,114 14
Other School Committee Expenses	88,491 21
Thorndike School House	7,379 45
Lassell School—Repairing Fire Damage	31 87
Webster School House—Land and Building	73,112 41
Land for School House—Windsor Street	79 61
Tuition, etc.	15 00
Sealer of Weights and Measures:—	
Salaries	3,802 92
General Expenses	371 91
Sewer Department:—	
Construction:—	
General	15,534 59
Separate System of Drainage	24,712 00
Subway	3,346 47
Subway	4,386 67
Gate Chambers	158 65
Maintenance	18,229 88
Amount carried forward	$3,017,364 07

MARCH 31, 1911 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER

Cr.

Amount brought forward	$4,743,357 26

Amount carried forward	$4,743,357 26

City of Cambridge in Account Current from April 1, 1910, to

Dr.

Amount brought forward	$3,017,364 07
Shoe and Leather Exhibit	68 21
Sinking Funds:—	
Brookline Bridge	333 33
Cambridge Bridge	21,333 33
Cambridge Bridge Special	616 00
City of Cambridge, Act of 1908	36,000 00
Clay Lands	5,335 00
Commercial Avenue Bridge	666 67
General	132,347 64
Harvard Bridge	8,800 00
Hospital	975 00
Improved Sewerage	8,778 00
Metropolitan Park Assessment	1,012 00
Park	25,263 99
Separate System of Drainage	4,334 00
Water	120,624 50
Sinking Fund Expenses	390 00
Commissioners of Sinking Funds	257,500 00
State Aid	25,576 36
Street Department:—	
Salaries	6,802 65
Construction:—	
Otis Street Extension	310 24
Ames Street	11,998 92
Hadley Street	856 15
Bridges	6,092 43
Cleaning	36,772 65
Collection of Ashes	46,483 79
Crossings	2,034 00
Edgestones and Sidewalks	25,731 80
Repairing Sixth Street Bridge	5,151 91
Repairing Mount Auburn Bridge	249 83
Huron Avenue Bridge Repairs	278 07
Horses	5,000 00
Incinerator	4,299 86
Maintenance and Repairs	72,578 74
Rebuilding Streets	70,937 23
Sidewalk Repairs	6,499 91
Snow Removal	6,392 13
Street Sprinkling	36,710 65
Taxes:—	
1908—Abatements	257 28
1909—Abatements	1,753 85
1910—Abatements	36,512 69
Tax Lien Account	1,633 33
Amount carried forward	$4,052,656 71

MARCH 31, 1911 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER

Cr.

Amount brought forward	$4,743,357 26

Amount carried forward	$4,743,357 26

City of Cambridge in Account Current from April 1, 1910, to

Dr.

Amount brought forward	$4,052,656 71
Tax:—	
Abatement of Smoke	532 16
Charles River Basin	24,331 00
Corporation	20 44
County	108,787 44
Grade Crossings	6,584 00
Metropolitan Parks	60,573 68
Metropolitan Sewer	99,695 56
National Bank	3,101 79
State	156,860 00
Treasury Department:—	
Salaries	11,356 60
General Expenses	7,628 71
Water Department:—	
Construction:—	
General	6,116 12
Hobbs Brook Conduit	14,943 71
Subway Construction	21,684 31
Maintenance	19,292 55
Salaries	12,296 67
General Expenses	33,918 57
Meters	4,777 37
Playgrounds	106 00
Pumping:—	
Salaries and Labor	9,072 56
General Expenses	12,070 39
Repairs to Pumping Station	1,137 44
Study of Water Supply	160 00
Fresh Pond Reservoir	8,336 23
Hobbs Brook Reservoir	1,299 09
Payson Park Reservoir	981 03
Stony Brook Reservoir	2,861 72
Ice for Fountains	712 65
Service of City Solicitor and City Treasurer	2,500 00
Abatements	2,023 66
Refunds	1,156 53
Total Payments	$4,687,574 19
Cash Balance in Treasury, March 31, 1911	408,468 84
	$5,096,043 03

MARCH 31, 1911 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER

Cr.

Amount brought forward	$4,743,357 26
Total Receipts	$4,743,357 26
Cash Balance in Treasury, March 31, 1910	352,685 77
	$5,096,043 03

TEMPORARY LOANS IN ANTICIPATION OF TAXES NEGOTIATED DURING THE YEAR ENDING MARCH 31, 1911

Date.	Maturity.	Amount.	
1910	**1910**		
May 3	October 10	$160,000	With interest at 4 per cent. per annum.
June 23	October 10	50,000	Discounted at 4 per cent. per annum.
July 2	October 10	25,000	" " 4 " " " "
		$235,000	

These loans were all paid before the close of the financial year.

PARTICULARS CONCERNING THE BONDS NEGOTIATED DURING THE YEAR ENDING MARCH 31, 1911

Date of Bonds.	Amount.	Loan.	Years to Run.	Rate of Interest.	Purchaser.	Price Paid.
1910						
May 1	$5,000	Sewer	30	4	City Treasurer of Cambridge in trust for Cemetery Fund.	Par
May 2	5,000	Sewer	30	4	Trustees of the Cambridge Public Library.	Par
May 20	5,000	Sewer	30	4	Trustees of the Daniel White Charity.	Par
July 1	25,000	Sewer	30	4	Merrill, Oldham & Co. and R. L. Day & Co.	1.0016
July 1	95,000	Cambridge Hospital	20	4	Merrill, Oldham & Co. and R. L Day & Co.	1.0016
July 1	50,000	Playground	30	4	Merrill, Oldham & Co. and R. L. Day & Co.	1 0016
July 1	107,000	School House	20	4	Merrill, Oldham & Co. and R. L. Day & Co.	1.0016
July 1	20,000	Cambridge Bridge	40	4	Merrill, Oldham & Co. and R. L. Day & Co.	1.0016
July 1	8,000	Municipal	10	4	Merrill, Oldham & Co. and R. L Day & Co.	1.0016
July 1	13,000	School House	20	4	Merrill, Oldham & Co. and R. L. Day & Co.	1.0016
July 1	12,000	Street	20	4	Merrill, Oldham & Co. and R L. Day & Co.	1.0016
March 1	25,000	Street	10	3½	East Cambridge Savings Bnk.	Par
March 1	800	Street	10	3½	City Treasurer of Cambridge in trust for Cemetery Fund.	Par
March 1	1,500	Water	30	3½	City Treasurer of Cambridge in trust for Cemetery Fund.	Par
March 1	2,000	Park	40	3½	City Treasurer of Cambridge in trust for Cemetery Fund	Par
March 1	25,000	Street	10	4	Estabrook & Co.	Par
March 1	25,000	Street	10	3½	" " "	Par
March 1	27,000	Street	20	3½	" " "	Par
March 1	5,000	School House	20	3½	" " "	Par
March 1	10.000	Water	30	3½	" " "	Par
March 1	10,000	Sewer	30	3½	" " "	Par
March 1	5,000	Water	30	3½	" " "	Par
March 1	15,000	Park	40	3½	" " "	Par
	$496,300					

RECAPITULATION

Cambridge Bridge	$20,000 00	Schoolhouse	$125,000 00
Cambridge Hospital ...	95,000 00	Sewer	50,000 00
Municipal	8,000 00	Street	114,800 00
Park	17,000 00	Water	16,500 00
Playground	50,000 00		
		Total issue	$496,300 00

FEES

During the year ending March 31, 1911, the Treasurer has received official fees amounting to $3,587.55, itemized as follows:—

Summonses to delinquents	$1,725 30	
Preparing advertisements of sale	398 65	
Advertisements of sale	677 75	
Posting advertisements of sale	317 00	
Making tax deeds	270 00	
Recording affidavits	40 85	
Certificates of liens	82 00	
Releases of tax deeds	76 00	
		$3,587 55

These fees were all turned into the City Treasury as received.

CEMETERY FUND

Received during the year ending March 31, 1911, from proprietors of lots in Cambridge Cemetery	$2,723 25	
Which added to amount of Fund, April 1, 1910	80,943 65	
Makes the present amount		$83,666 90
Received for Deeds in Trust	$10 00	
Which added to the amount of Fund, April 1, 1910	182 00	
		192 00
Makes the present amount of both funds		$83,858 90

The interest received on the Fund for the year was $3,069.70, which has been paid to the Commissioners of the Cambridge Cemetery for the care of all lots placed in perpetual care.

The assets of the two Funds, as of March 31, 1911, are invested as follows, viz.:—

Registered bonds of the City of Cambridge amounting to	$83,750 00	
Deposited in Cambridgeport Savings Bank.....	108 90	
		$83,858 90
Fund for perpetual care of lots	$83,666 90	
Fund for Deeds in Trust is	192 00	
		$83,858 90

This fund is held in trust by the City Treasurer.

SARAH E. RUSSELL FUND

This is a fund bequeathed by the late Sarah E. Russell of Cambridge in 1898, "the income therefrom to be annually expended in or towards providing a Christmas tree or Christmas gifts and entertainments for the inmates at the time of the Cambridge Almshouse."

The amount of the bequest was $814.41, and was deposited in the Cambridgeport Savings Bank, where it now remains.

The interest accumulations for the year have been paid to Mr. C. E. Goodrow, Superintendent of the City Home, and were used as stipulated in the will of Mrs. Russell.

WM. W. DALLINGER,
City Treasurer.

REPORT OF THE COMMISSIONERS OF THE SINKING FUNDS OF THE CITY

To the Honorable, the City Council:—

The Commissioners of the several Sinking Funds of the City herewith submit their annual report, covering the year ending March 31, 1911. Our report shows the condition of the Sinking Funds under two divisions: first, Municipal; second, Water.

The following is the condition of the Municipal Loans Funds:—

Dr.

The amount of the Funds, March 31, 1910, was	$1,604,850 79	
Received from the City of Cambridge the annual requirements as appropriated by the City Council for the several bonded loans	232,130 20	
Special Fund—Amount received from Boston Elevated Street Railway towards cost of new Cambridge Bridge	257,500 00	
Unexpended balances	2,792 76	
Sale of City lands	11,400 00	
Interest received on invested funds	68,455 88	
Premiums received on investments purchased...	4,050 50	
		$2,181,180 13

Cr.

Paid on account of maturing Cambridge bonds	$58,000 00	
Paid premiums on investments purchased	5,394 20	
Paid accrued interest on investments purchased	6,347 86	
Leaving the total amount of the Funds, March 31, 1911	2,111,438 07	
		$2,181,180 13

The following figures show the condition of the Water Loan Fund:—

Dr.

The amount of the Fund, March 31, 1910, was	$1,873,389 93	
The amount received from the City Treasurer of Cambridge being the annual requirements for 1911 derived from the water rates	120,624 50	
Interest received on investments	62,380 29	
Premiums received on investments	1,662 50	
Surplus received from water rates	19,292 55	
		$2,077,349 77

Cr.

Paid accrued interest on investments purchased	$340 28	
Paid City Treasurer to meet maturing bonded debt	508,000 00	
Leaving the amount of the Fund, March 31, 1911	1,569,009 49	
		$2,077,349 77

The following are the investments belonging to the Municipal Loan Funds:—

			Maturing		
Cambridge	City bonds	4s	July 1, 1911		$1,000 00
"	" "	3½s	Nov. 1, 1911		36,000 00
"	" "	4s	Jan. 1, 1912		21,000 00
"	" "	4s	May 2, 1912		5,000 00
"	" "	3½s	July 1, 1912		33,000 00
"	" "	3½s	Nov. 1, 1912		5,000 00
"	" "	4s	Nov. 1, 1912		22,000 00
"	" "	4s	Feb. 1, 1913		1,000 00
"	" "	4s	Aug. 1, 1914		21,000 00
"	" "	4s	April 1, 1915		200,000 00
"	" "	4s	Oct. 1, 1915		70,000 00
"	" "	4s	July 1, 1916		70,000 00
"	" "	4s	Aug. 1, 1916		90,000 00
"	" "	4s	Oct. 1, 1916		110,000 00
"	" "	3½s	Nov. 1, 1917		65,000 00
"	" "	4s	Jan. 1, 1918		10,000 00
"	" "	3½s	May 2, 1918		50,000 00
"	" "	3½s	Aug. 1, 1918		90,000 00
"	" "	4s	Mar. 1, 1919		5,000 00
"	" "	3½s	Nov. 1, 1919		18,000 00
"	" "	3½s	Nov. 1, 1921		27,000 00
"	" "	3½s	July 1, 1922		5,000 00
"	" "	4s	Feb. 1, 1924		15,000 00
"	" "	3½s	April 1, 1924		25,000 00
"	" "	4s	April 1, 1924		40,000 00
"	" "	3½s	May 1, 1925		24,500 00
"	" "	3½s	Aug. 1, 1925		20,000 00
"	" "	4s	Nov. 1, 1926		6,000 00
"	" "	4s	Sept. 1, 1927		5,000 00
"	" "	4s	Nov. 1, 1927		10,000 00
"	" "	3½s	Nov. 1, 1929		42,000 00
"	" "	4s	Nov. 1, 1937		10,000 00
"	" "	3½s	Jan. 1, 1943		6,000 00
Lynn	City "	4s	May 1, 1911		5,000 00
Beverly	" "	4s	July 1, 1911		9,000 00
Medford	" "	4s	July 1, 1911		26,000 00
Lenox	Town "	4s	Oct. 10, 1911		5,000 00
Boston	City "	4s	April 1, 1912		23,000 00
Lynn	" "	4s	May 1, 1912		5,000 00
Lenox	Town "	4s	Oct. 10, 1912		5,000 00
Boston & Lowell R. R. Co.		4s	Feb. 1, 1913		11,000 00
Lynn	City bonds	4s	May 1, 1913		5,000 00
Boston & Albany R. R. Co.		4s	Oct. 1, 1913		50,000 00
N. Y., N. H. & H. R. R. Co.		4s	Feb. 1, 1914		40,000 00
Lynn	City bonds	4s	May 1, 1914		5,000 00
Allegheny, Pa.	" "	3½s	Oct. 1, 1914		22,000 00
Dalton	Town "	4s	Jan. 1, 1915		15,000 00
Watertown	" "	3½s	Jan. 1, 1915		6,000 00
Lynn	City "	4s	May 1, 1915		5,000 00
Medford	" "	4s	July 1, 1915		23,000 00
Fall River	" "	4s	Aug. 1, 1915		5,000 00
West End St. Ry.		4s	Aug. 1, 1915		57,000 00
Allegheny, Pa.	City "	3½s	Oct. 1, 1915		22,000 00
Amount carried forward					$1,502,500 00

Amount brought forward						$1,502,500 00	
Boston	City	bonds	4s	Jan.	1, 1916	20,000 00	
Watertown	Town	"	3½s	Jan.	1, 1916	7,000 00	
Melrose	City	"	4s	Feb.	24, 1916	10,000 00	
Fall River	"	"	4s	Mar.	1, 1916	42,000 00	
Lynn	"	"	4s	May	1, 1916	5,000 00	
West End St. Ry.			4s	May	1, 1916	4,000 00	
Brockton	City	"	3½s	July	1, 1916	5,000 00	
Boston & Lowell R. R. Co.			4s	July	1, 1916	10,000 00	
Fitchburg R. R. Co.			4s	July	1, 1916	10,000 00	
Worcester	City	bonds	4s	July	1, 1916	35,000 00	
Allegheny, Pa.	"	"	3½s	Oct.	1, 1916	22,000 00	
Boston	"	"	3½s	Jan.	1, 1917	50,000 00	
Watertown	Town	"	3½s	Jan.	1, 1917	9,000 00	
West End St. Ry.			4s	Feb.	1, 1917	43,000 00	
Watertown	Town	"	3½s	Jan.	1, 1918	9,000 00	
Marlborough	City	"	4s	July	1, 1918	10,000 00	
Medford	"	"	4s	Aug.	1, 1918	50,000 00	
Watertown	Town	"	3½s	Jan.	1, 1919	9,000 00	
Boston	City	"	3½s	July	1, 1919	5,000 00	
Watertown	Town	"	3½s	Jan.	1, 1920	9,000 00	
Stoughton	"	"	4s	June	1, 1920	2,000 00	
Watertown	"	"	3½s	Jan.	1, 1921	9,000 00	
Watertown	"	"	3½s	Jan.	1, 1922	9,000 00	
Reading	"	"	4s	June	1, 1922	5,000 00	
Boston	City	"	3½s	June	1, 1922	53,000 00	
Boston	"	"	3½s	June	1, 1923	66,000 00	
Reading	Town	"	4s	June	1, 1923	5,000 00	
Medford	City	"	4s	July	1, 1923	2,000 00	
Old Colony R. R. Co.			4s	Dec.	1, 1925	50,000 00	
Fitchburg R. R. Co.			4s	Mar.	1, 1927	40,000 00	
							$2,107,500 00
Cash on hand							3,938 07
							$2,111,438 07

The following are the investments belonging to the Water Loan Funds:—

				Maturing		
Cambridge	City	bonds	3½s	May	1, 1911	12,500 00
"	"	"	4s	May	1, 1912	2,000 00
"	"	"	3½s	May	1, 1912	10,500 00
"	"	"	4s	May	2, 1912	1,000 00
"	"	"	3½s	Nov.	1, 1912	20,000 00
"	"	"	4s	Nov.	1, 1912	3,000 00
"	"	"	4s	Feb.	1, 1913	8,000 00
"	"	"	3½s	May	1, 1913	5,500 00
"	"	"	3½s	May	1, 1915	12,500 00
"	"	"	4s	April	1, 1916	10,000 00
"	"	"	3½s	May	1, 1916	11,500 00
"	"	"	4s	Oct.	1, 1916	65,100 00
"	"	"	3½s	May	1, 1917	12,500 00
"	"	"	3½s	Dec.	1, 1917	40,000 00
Amount carried forward						$214,100 00

Amount brought forward					$214,100 00
Cambridge	City	bonds	3½s	May 2, 1918	100,000 00
"	"	"	3½s	May 1, 1919	12,500 00
"	"	"	3½s	Nov. 1, 1919	20,000 00
"	"	"	3½s	May 1, 1920	12,500 00
"	"	"	4s	Nov. 1, 1920	5,000 00
"	"	"	3½s	May 1, 1921	12,500 00
"	"	"	3½s	May 1, 1922	12,500 00
"	"	"	3½s	July 1, 1922	1,000 00
"	"	"	3½s	May 1, 1923	12,500 00
"	"	"	4s	April 1, 1924	1,000 00
"	"	"	3½s	May 1, 1924	12,500 00
"	"	"	3½s	April 1, 1933	1,000 00
Boston	City	"	4s	April 1, 1911	13,000 00
Revere	Town	"	3½s	April 1, 1911	4,000 00
Holyoke	City	"	3½s	May 1, 1911	7,500 00
Taunton	"	"	3½s	June 1, 1911	35,000 00
Springfield	"	"	3½s	July 1, 1911	8,700 00
Brockton	"	"	3½s	Aug. 1, 1911	2,000 00
Newburyport	"	"	3½s	Sept. 1, 1911	2,000 00
Salem	"	"	3½s	Sept. 1, 1911	5,000 00
Greenfield	Town	"	3½s	Oct. 15, 1911	12,000 00
Newton	City	"	3½s	Nov. 1, 1911	12,500 00
Fitchburg	"	"	3½s	Nov. 1, 1911	8,000 00
Troy, N. Y.	"	"	3½s	Nov. 15, 1911	2,000 00
New Bedford	"	"	3½s	Mar. 1, 1912	15,000 00
Boston	"	"	4s	April 1, 1912	35,000 00
Pittsburg, Pa.	"	"	3¼s	April 1, 1912	10,000 00
Holyoke	"	"	3½s	May 1, 1912	7,500 00
Worcester	"	"	3½s	July 1, 1912	35,000 00
Springfield	"	"	3½s	July 1, 1912	8,700 00
Somerville	"	"	4s	July 1, 1912	8,000 00
Brockton	"	"	3½s	Aug. 1, 1912	2,000 00
Newburyport	"	"	3½s	Sept. 1, 1912	7,000 00
Salem	"	"	3½s	Sept. 1, 1912	5,000 00
Wakefield	Town	"	4s	Oct. 1, 1912	1,000 00
Gloucester	City	"	3½s	Oct. 1, 1912	10,000 00
Lynn	"	"	3½s	Oct. 1, 1912	3,000 00
Fitchburg	"	"	3½s	Nov. 1, 1912	8,000 00
Troy, N. Y.	"	"	3½s	Nov. 15, 1912	2,000 00
Boston & Lowell R. R. Co.			4s	Feb. 1, 1913	35,000 00
Holyoke	City	bonds	3½s	May 1, 1913	7,500 00
Newburyport	"	"	3½s	June 1, 1913	12,000 00
Springfield	"	"	3½s	July 1, 1913	8,700 00
Somerville	"	"	4s	July 1, 1913	8,000 00
Brockton	"	"	3½s	Aug. 1, 1913	2,000 00
Newburyport	"	"	3½s	Sept. 1, 1913	7,000 00
Salem	"	"	3½s	Sept. 1, 1913	5,000 00
Gloucester	"	"	3½s	Oct. 1, 1913	10,000 00
Fitchburg	"	"	3½s	Nov. 1, 1913	8,000 00
Troy, N. Y.	"	"	3½s	Nov. 15, 1913	2,000 00
N. Y., N. H. & H. R. R. Co.			4s	Feb. 1, 1914	28,000 00
Holyoke	City	bonds	3½s	May 1, 1914	7,500 00
Springfield	"	"	3½s	July 1, 1914	6,700 00
Somerville	"	"	4s	July 1, 1914	8,000 00
Salem	"	"	3½s	Sept. 1, 1914	5,000 00
Newburyport	"	"	3½s	Sept. 1, 1914	7,000 00
Troy, N. Y.	"	"	3½s	Nov. 15, 1914	2,000 00
Amount carried forward					$642,300 00

Amount brought forward						$642,300 00
Lynn	City	bonds	4s	Jan.	1, 1915	16,000 00
Fitchburg R. R. Co.			4s	Mar.	1, 1915	40,000 00
Revere	Town	"	3½s	April	1, 1915	1,000 00
Weymouth	"	"	3½s	May	1, 1915	2,500 00
Holyoke	City	"	3½s	May	1, 1915	7,500 00
Newburyport	"	"	3½s	June	1, 1915	12,000 00
Springfield	"	"	3½s	July	1, 1915	5,700 00
Somerville	"	"	4s	July	1, 1915	8,000 00
Brockton	"	"	3½s	Aug.	1, 1915	1,000 00
West End St. Ry.			4s	Aug.	1, 1915	9,000 00
Newburyport	City	"	3½s	Sept.	1, 1915	7,000 00
Salem	"	"	3½s	Sept.	1, 1915	5,000 00
Gloucester	"	"	3½s	Oct.	1, 1915	10,000 00
Troy, N. Y.	"	"	3½s	Nov.	15, 1915	2,000 00
Weymouth	Town	"	3½s	May	1, 1916	2,500 00
Holyoke	City	"	3½s	May	1, 1916	7,500 00
Springfield	"	"	3½s	July	1, 1916	3,500 00
Somerville	"	"	4s	July	1, 1916	8,000 00
Salem	"	"	3½s	Sept.	1, 1916	5,000 00
Gloucester	"	"	3½s	Oct.	1, 1916	10,000 00
Boston	"	"	3½s	Jan.	1, 1917	20,000 00
West End St. Ry.			4s	Feb.	1, 1917	3,000 00
Wellesley	Town	"	4s	Mar.	1, 1917	2,000 00
Waltham	City	"	4s	April	1, 1917	24,000 00
Revere	Town	"	3½s	April	1, 1917	12,000 00
Weymouth	"	"	3½s	May	1, 1917	2,500 00
Holyoke	City	"	3½s	May	1, 1917	7,500 00
New London	"	"	4s	July	1, 1917	5,000 00
Salem	"	"	3½s	Sept.	1, 1917	5,000 00
Gloucester	"	"	3½s	Oct.	1, 1917	10,000 00
New Bedford	"	"	4½s	Oct.	1, 1917	75,000 00
Hallowell, Me.	"	"	4s	Jan.	1, 1918	15,000 00
Wellesley	Town	"	4s	Mar.	1, 1918	1,000 00
Weymouth	"	"	3½s	May	1, 1918	2,500 00
Holyoke	City	"	3½s	May	1, 1918	7,500 00
Salem	"	"	3½s	Sept.	1, 1918	5,000 00
Gloucester	"	"	3½s	Oct.	1, 1918	10,000 00
Weymouth	Town	"	3½s	May	1, 1919	2,500 00
Newburyport	City	"	3½s	June	1, 1919	11,000 00
Salem	"	"	3½s	Sept.	1, 1919	5,000 00
Boston	"	"	3½s	Oct.	1, 1919	6,000 00
Revere	Town	"	3½s	April	1, 1920	2,000 00
Weymouth	"	"	3½s	May	1, 1920	2,500 00
Penobscot Shore Line R.R. Co.			4s	Aug.	1, 1920	25,000 00
Fitchburg R. R. Co.			3½s	Oct.	1, 1920	50,000 00
Revere	Town	bonds	3½s	April	1, 1922	7,000 00
Quincy	City	"	4s	May	1, 1923	2,000 00
Quincy	"	"	4s	May	1, 1924	1,000 00
Rochester, N. Y.	"	"	3½s	July	1, 1924	35,000 00
Quincy	"	"	4s	May	1, 1925	2,000 00
Quincy	"	"	4s	May	1, 1926	3,000 00
Quincy	"	"	4s	May	1, 1927	3,000 00
Attleborough	Town	"	4s	July	1, 1927	10,000 00
Quincy	City	"	4s	May	1, 1928	3,000 00
Winchester	Town	"	4s	June	1, 1928	6,000 00
Quincy	City	"	4s	May	1, 1929	3,000 00
Fall River	"	"	3½s	Nov.	1, 1929	75,000 00
Amount carried forward						$837,300 00

Amount brought forward						$837,300 00	
Quincy	City	bonds	4s	May	1, 1930	3,000 00	
Quincy	"	"	4s	May	1, 1931	3,000 00	
Quincy	"	"	4s	May	1, 1932	1,000 00	
Newton	"	"	4s	Aug.	1, 1935	2,000 00	
Newton	"	"	4s	July	1, 1936	11,000 00	
Grafton	Town	"	3½s	July	1, 1937	1,000 00	
Old Colony R. R. Co.			4s	Jan.	1, 1938	25,000 00	
Grafton	Town	"	3½s	July	1, 1938	2,000 00	
Grafton	"	"	3½s	July	1, 1939	2,000 00	
							$1,529,600 00
Cash on hand							39,409 49
							$1,569,009 49

The Committee appointed to audit the accounts of the Treasurer of the Funds reports that his accounts are correct and properly vouched and his books are well kept. The interest, bond and cash transactions of the Treasurer during the year have been carefully computed independently of his books and the correctness of his accounts thereby proved.

MUNICIPAL FUNDS ACCOUNT

BOND ACCOUNT

Amount in the Fund, March 31, 1910	$1,601,500 00		
Amount purchased to March 31, 1911	976,000 00		
		$2,577,500 00	
Amount matured and sold to March 31, 1911		470,000 00	
Amount of Bonds in the Fund March 31, 1911			$2,107,500 00

CASH ACCOUNT

Cash on hand March 31, 1910	$3,350 79		
Cash received from City of Cambridge, annual appropriation	246,322 96		
Cash from interest on investments	68,455 88		
Cash from matured City of Cambridge note	160,000 00		
Cash from matured bonds and note	277,000 00		
Cash from City of Rochester, N. Y., bond, due June 1, 1912—called July 1, 1910	20,000 00		
	$775,129 63		$2,107,500 00

Amounts brought forward	$775,129 63		$2,107,500 00
Cash from City of Boston bond, due April 1, 1911	13,000 00		
Cash from discount on bonds purchased below par	4,050 50		
Cash from City of Cambridge on account of amount received from Boston Elevated Railway Co.	257,500 00		
		$1,049,680 13	
Cash paid for bonds purchased	$976,000 00		
Cash paid for premium on bonds purchased	5,394 20		
Cash paid for accrued interest on bonds purchased	6,347 86		
Cash paid City of Cambridge for municipal debt maturing this year	58,000 00		
		1,045,742 06	
Balance cash on hand March 31, 1911			$3,938 07
Total amount of Fund March 31, 1911			$2,111,438 07

WATER LOAN FUNDS

BOND ACCOUNT

Amount of bonds in the Fund March 31, 1910	$1,770,300 00		
Amount of bonds purchased during the year	113,000 00		
		$1,883,300 00	
Amount of bonds matured during the year	$303,700 00		
Amount of bonds sold Boston & Albany R. R., due Oct. 1, 1913	50,000 00		
		353,700 00	
Amount of bonds in the Fund March 31, 1911			$1,529,600 00

CASH ACCOUNT

Cash on hand March 31, 1910	$103,089 93	
Cash received from City of Cambridge, annual appropriation	120,624 50	
Cash received from City of Cambridge for surplus receipts, Water Works Maintenance Account	19,292 55	
Cash received from interest on investments	62,380 29	
Cash received from matured bonds	303,700 00	
Cash received from New Haven & Northampton R. R. bond sold	50,000 00	
Cash received from discount on bonds bought below par	1,600 00	
Amounts carried forward	$660,687 27	

Amounts brought forward	$660,687 27		
Cash received from premium on New Haven & Northampton R. R. bond sold	62 50		
		$660,749 77	
Cash paid for bonds purchased	113,000 00		
Cash paid for accrued interest on bonds purchased	340 28		
Cash paid City of Cambridge to meet water debt maturing this year	508,000 00		
		621,340 28	
Balance cash on hand March 31, 1911			39,409 49
Total amount of the Fund March 31, 1911			$1,569,009 49

FRANK A. ALLEN,
GEORGE G. WRIGHT,
JAMES O'BRIEN,
Auditing Committee.

Municipal Bonds to the amount of $479,800.00 have been issued during the year. Municipal Bonds amounting to $58,000.00 matured during the year and were paid from the Sinking Fund. The total amount of the Funded Municipal Debt, exclusive of the Water Works Debt, now outstanding is $8,185,050.00. Deducting the present amount, at par value, of the Municipal Sinking Fund ($2,111,438.07) leaves the net amount of the Municipal Funded Debt, March 31, 1911, $6,073,611.93. This shows a net decrease of $84,787.28 during the year. There will be due this Fund from taxation during the next municipal year the sum of $237,989.28. During the coming year Municipal Bonds to the amount of $101,000.00 will mature and be paid from this Fund.

Bonds amounting to $16,500.00 on account of the Cambridge Water Works have been issued during the past year. Bonds on this account to the amount of $508,000.00 matured and were paid from this Fund, and one Serial Bond of $12,500.00 also matured and was paid by the City Treasurer. This shows that nearly one-seventh part of the Water Debt was extinguished in this one year. The total amount of the Water Debt now outstanding is $3,247,600.00. Deducting the par value of the Water Loan Sinking Fund ($1,569,009.49) leaves the net Funded Water Debt, March 31, 1911, $1,678,590.51, a decrease of $199,319.56 from last year. During the coming year $185,000.00 of Water Bonds will mature and be paid from this Fund. The sum of $257,500.00 has been received from the City on account

of the payment by the Boston Elevated Railway Company in settlement of the building of the Cambridge Bridge. This sum has been invested by the Board of Sinking Fund Commissioners and the income from it will reduce the amount required to be paid from taxation for many years to come. There will be due to this Fund during the coming financial year, from water rates, etc., $104,097.50.

FRANK A. ALLEN,
GEO. H. HOWARD,
GEORGE G. WRIGHT,
JAMES O'BRIEN,
GUSTAVUS GOEPPER,
THOMAS F. ROYLE,
Commissioners of the Sinking Funds of the City of Cambridge.

The bonded City Debt matures as follows, viz.:—

July	1, 1911,	Sewer	4s	$15,000 00
July	1, 1911,	Clay Land	4s	50,000 00
Nov.	1, 1911,	City	3 1-2s	36,000 00
July	1, 1912,	City	3 1-2s	38,000 00
Nov.	1, 1912,	Clay Land	3 1-2s	20,000 00
Nov.	1, 1912,	City	3 1-2s	20,000 00
Aug.	1, 1913,	Clay Land	3 1-2s	10,000 00
July	1, 1914,	Clay Land	3 1-2s	17,000 00
Aug.	1, 1914,	Building	4s	118,000 00
Aug.	1, 1914,	Street	4s	30,000 00
Oct.	1, 1915,	Building	4s	60,000 00
Oct.	1, 1915,	Street	4s	60,000 00
July	1, 1916,	Building	4s	70,000 00
Oct.	1, 1916,	Street	4s	137,000 00
Oct.	1, 1916,	Building	4s	33,000 00
Oct.	1, 1916,	Sewer	4s	75,000 00
Oct.	1, 1916,	Schoolhouse	4s	6,000 00
July	1, 1917,	Schoolhouse	3 1-2s	100,000 00
Oct.	1, 1917,	Harvard Bridge	4s	10,000 00
Jan.	1, 1918,	City	4s	10,000 00
May	1, 1918,	City	4s	400,000 00
May	2, 1918,	Schoolhouse	3 1-2s	100,000 00
May	2, 1918,	Street	3 1-2s	15,000 00
June	1, 1918,	Schoolhouse	3 1-2s	50,000 00
June	1, 1918,	City	4s	30,000 00
July	1, 1918,	Harvard Bridge	4s	100,000 00
Aug.	1, 1918,	Schoolhouse	3 1-2s	142,000 00
Aug.	1, 1918,	City	4s	7,000 00
Sept.	1, 1918,	Harvard Bridge	4s	100,000 00
Mar.	1, 1919,	Harvard Bridge	4s	115,000 00
July	1, 1919,	Schoolhouse	3 1-2s	42,000 00
Nov.	1, 1919,	Street	3 1-2s	5,000 00
Nov.	1, 1919,	Schoolhouse	3 1-2s	13,000 00
Jan.	1, 1920,	Street	3 1-2s	75,000 00
July	1, 1920,	Municipal	4s	8,000 00
Nov.	1, 1920,	Harvard Bridge	4s	5,000 00
Nov.	1, 1920,	Street	3 1-2s	21,000 00
Mar.	1, 1921,	Street	3 1-2s	25,800 00
Mar.	1, 1921,	Street	4s	25,000 00
Mar.	1, 1921,	Street	3 1-2s	25,000 00
July	1, 1921,	Harvard Bridge	4s	60,000 00
July	1, 1921,	Street	3 1-2s	30,000 00
July	1, 1921,	Cambridge Bridge	3 1-2s	24,000 00
July	1, 1921,	Schoolhouse	3 1-2s	76,000 00
Nov.	1, 1921,	Public Library	3 1-2s	27,000 00
July	1, 1922,	Hospital	3 1-2s	6,000 00
Amount carried forward				$2,441,800 00

Amount brought forward				$2,441,800 00
July	1, 1922,	Schoolhouse	3 1-2s	86,500 00
July	1, 1922,	Street	3 1-2s	30,000 00
Oct.	1, 1922,	Schoolhouse	3 1-2s	11,000 00
Nov.	1, 1922,	Street	3 1-2s	14,000 00
Apr.	1, 1923,	Street	3 1-2s	4,000 00
Apr.	1, 1923,	Building	3 1-2s	3,000 00
Aug.	1, 1923,	Harvard Bridge	4s	10,000 00
Oct.	1, 1923,	Schoolhouse	3 1-2s	80,000 00
Nov.	2, 1923,	Street	3 1-2s	12,000 00
Feb.	1, 1924,	Park	4s	360,000 00
Apr.	1, 1924,	Building	3 1-2s	25,000 00
Apr.	1, 1924,	Schoolhouse	3 1-2s	80,000 00
May	1, 1924,	Building	3 1-2s	5,000 00
Aug.	1, 1924,	Sewer	4s	75,000 00
Sept.	1, 1924,	Street	3 1-2s	59,000 00
Nov.	1, 1924,	Building	3 1-2s	6,000 00
Nov.	1, 1924,	Schoolhouse	3 1-2s	20,000 00
Nov.	1, 1924,	Street	3 1-2s	6,500 00
May	1, 1925,	Street	3 1-2s	84,000 00
May	1, 1925,	Schoolhouse	3 1-2s	20,950 00
Aug.	1, 1925,	Schoolhouse	3 1-2s	20,000 00
Oct.	1, 1925,	Sewer	4s	60,000 00
Nov.	1, 1925,	Street	3 1-2s	1,500 00
May	1, 1926,	Street	4s	100,000 00
Aug.	1, 1926,	Park	4s	100,000 00
Aug.	1, 1926,	Schoolhouse	4s	47,000 00
Aug.	1, 1926,	Street	4s	22,000 00
Oct.	1, 1926,	Park	4s	40,000 00
Apr.	1, 1927,	Street	4s	40,000 00
June	1, 1927,	Street	4s	19,000 00
Sept.	1, 1927,	Street	4s	25,000 00
Sept.	1, 1927,	Building	4s	30,000 00
Nov.	1, 1927,	Street	4s	10,000 00
Jan.	1, 1928,	Street	4s	34,000 00
Aug.	1, 1928,	Street	4s	42,000 00
Aug.	1, 1928,	Hospital	4s	20,000 00
Dec.	1, 1928,	Schoolhouse	3 1-2s	40,000 00
Mar.	1, 1929,	Street	3 1-2s	20,000 00
Nov.	1, 1929,	Sewer	3 1-2s	42,000 00
Jan.	1, 1930,	Street	3 1-2s	13,500 00
Jan.	1, 1930,	Schoolhouse	3 1-2s	93,500 00
July	1, 1930,	Sewer	3 1-2s	100,000 00
July	1, 1930,	Schoolhouse	4s	120,000 00
July	1, 1930,	Cambridge Hospital	4s	95,000 00
July	1, 1930,	Street	4s	12,000 00
Mar.	1, 1931,	Street	3 1-2s	27,000 00
Amount carried forward				$4,607,250 00

Amount brought forward				$4,607,250 00
Mar.	1, 1931,	Schoolhouse	3 1-2s	5,000 00
Aug.	1, 1931,	Sewer	3 1-2s	110,000 00
Aug.	1, 1932,	Metropolitan Park Assessment	3 1-2s	46,000 00
Nov.	1, 1932,	Sewer	3 1-2s	20,000 00
Apr.	1, 1933,	Sewer	3 1-2s	40,000 00
Oct.	1, 1933,	Sewer	3 1-2s	20,000 00
May	1, 1934,	Cambridge Bridge — Special Loan	3 1-2s	28,000 00
May	1, 1934,	Sewer	3 1-2s	112,000 00
Nov.	1, 1934,	Sewer	3 1-2s	5,000 00
May	1, 1935,	Sewer	3 1-2s	90,000 00
Aug.	1, 1935,	Park	4s	100,000 00
Feb.	1, 1936,	Park	4s	100,000 00
May	1, 1936,	Sewer	4s	35,000 00
Sept.	1, 1936,	Sewer	4s	25,000 00
Apr.	1, 1937,	Sewer	4s	60,000 00
Sept.	1, 1937,	Park	3 1-2s	100,000 00
Nov.	1, 1937,	Charles River Improvement	3 1-2s	50,000 00
Nov.	1, 1937,	Sewer	4s	10,000 00
June	1, 1938,	Park	3 1-2s	50,000 00
Aug.	1, 1938,	Park	3 1-2s	50,000 00
Aug.	1, 1938,	Charles River Improvement	3 1-2s	50,000 00
Aug.	1, 1938,	Sewer	4s	25,000 00
Dec.	1, 1938,	Sewer	4s	17,000 00
July	1, 1939,	Cambridge Bridge	3 1-2s	50,000 00
July	1, 1939,	Sewer	3 1-2s	2,000 00
Aug.	1, 1939,	Park	3 1-2s	100,000 00
Jan.	1, 1940,	Sewer	3 1-2s	46,000 00
May	1, 1940,	Sewer	4s	15,000 00
July	1, 1940,	Cambridge Bridge	3 1-2s	100,000 00
July	1, 1940,	Park	3 1-2s	50,000 00
July	1, 1940,	Sewer	4s	25,000 00
July	1, 1940,	Playground	4s	50,000 00
Nov.	1, 1940,	Park	3 1-2s	50,000 00
Feb.	1, 1941,	Cambridge Bridge	3s	100,000 00
Mar.	1, 1941,	Sewer	3 1-2s	10,000 00
Oct.	1, 1941,	Park	3 1-2s	100,000 00
Nov.	1, 1941,	Cambridge Bridge	3 1-2s	100,000 00
July	1, 1942,	Park	3 1-2s	48,000 00
Aug.	1, 1942,	Cambridge Bridge	3 1-2s	100,000 00
Jan.	1, 1943,	Cambridge Bridge	3 1-2s	50,000 00
Apr.	1, 1943,	Cambridge Bridge	3 1-2s	50,000 00
Apr.	1, 1943,	Park	3 1-2s	50,000 00
Amount carried forward				$6,851,250 00

Amount brought forward				$6,851,250 00
Aug.	1, 1943,	Cambridge Bridge	3 1-2s	50,000 00
Jan.	1, 1944,	Cambridge Bridge	3 1-2s	100,000 00
May	1, 1944,	Cambridge Bridge	3 1-2s	200,000 00
Aug.	1, 1944,	Cambridge Bridge	3 1-2s	100,000 00
Sept.	1, 1944,	Cambridge Bridge	3 1-2s	50,000 00
Sept.	1, 1944,	Park	3 1-2s	25,000 00
Nov.	1, 1944,	Park	3 1-2s	6,000 00
Apr.	1, 1945,	Park	3 1-2s	5,000 00
May	1, 1945,	Park	3 1-2s	45,000 00
May	1, 1945,	Cambridge Bridge	3 1-2s	150,000 00
Aug.	1, 1945,	Park	3 1-2s	5,000 00
Dec.	1, 1945,	Cambridge Bridge	3 1-2s	100,000 00
Jan.	1, 1946,	Cambridge Bridge	3 1-2s	20,000 00
Aug.	1, 1946,	Cambridge Bridge	4s	150,000 00
Aug.	1, 1946,	Commercial Ave. Bridge	4s	50,000 00
Sept.	1, 1946,	Park	4s	25,000 00
Sept.	1, 1946,	Cambridge Bridge	4s	5,000 00
Jan.	1, 1947,	Cambridge Bridge	4s	50,000 00
July	1, 1947,	Cambridge Bridge	4s	40,000 00
Oct.	1, 1947,	Cambridge Bridge	4s	15,000 00
Oct.	1, 1947,	Park	4s	10,000 00
Aug.	1, 1948,	Cambridge Bridge	4s	45,000 00
Aug.	1, 1948,	Park	4s	30,000 00
Nov.	1, 1948,	Park	4s	12,000 00
Jan.	1, 1950,	Park	3 1-2s	8,800 00
July	1, 1950,	Cambridge Bridge	4s	20,000 00
Mar.	1, 1951,	Park	3 1-2s	17,000 00
				$8,185,050 00

The bonded Water Debt matures as follows:—

May	1, 1911	3 1-2s	12,500 00
Oct.	1, 1911	4s	35,000 00
Jan.	1, 1912	4s	150,000 00
May	1, 1912	4s	75,000 00
May	1, 1912	3 1-2s	12,500 00
Nov.	1, 1912	4s	45,000 00
Feb.	1, 1913	4s	100,000 00
May	1, 1913	3 1-2s	12,500 00
Aug.	1, 1913	4s	50,000 00
May	1, 1914	3 1-2s	12,500 00
Apr.	1, 1915	4s	200,000 00
May	1, 1915	3 1-2s	12,500 00
Aug.	1, 1915	4s	200,000 00
Apr.	1, 1916	4s	100,000 00
May	1, 1916	3 1-2s	12,500 00
July	1, 1916	4s	200,000 00
Aug.	1, 1916	4s	100,000 00
Oct.	1, 1916	4s	265,100 00
Apr.	1, 1917	3 1-2s	200,000 00
Amount carried forward			$1,795,100 00

Amount brought forward			$1,795,100 00
May 1, 1911	3 1-2s	$12,500 00	
July 1, 1917	3 1-2s	100,000 00	
Nov. 1, 1917	3 1-2s	75,000 00	
Dec. 1, 1917	3 1-2s	140,000 00	
May 1, 1918	3 1-2s	12,500 00	
May 2, 1918	3 1-2s	50,000 00	
June 1, 1918	3 1-2s	60,000 00	
Nov. 1, 1918	3 1-2s	50,000 00	
May 1, 1919	3 1-2s	12,500 00	
Nov. 1, 1919	3 1-2s	23,000 00	
May 1, 1920	3 1-2s	12,500 00	
Nov. 1, 1920	3 1-2s	30,000 00	
May 1, 1921	3 1-2s	12,500 00	
July 1, 1921	3 1-2s	30,000 00	
May 1, 1922	3 1-2s	12,500 00	
July 1, 1922	3 1-2s	13,500 00	
Nov. 1, 1922	3 1-2s	5,000 00	
May 1, 1923	3 1-2s	12,500 00	
Apr. 1, 1924	4s	300,000 00	
May 1, 1924	3 1-2s	12,500 00	
May 1, 1925	3 1-2s	12,500 00	
May 1, 1925	3 1-2s	46,000 00	
June 1, 1928	4s	20,000 00	
Jan. 1, 1930	3 1-2s	5,000 00	
Feb. 1, 1930	3 1-2s	5,000 00	
May 1, 1936	4s	280,000 00	
June 1, 1937	4s	49,000 00	
July 1, 1937	4s	25,000 00	
Aug. 1, 1938	4s	17,000 00	
May 1, 1941	3 1-2s	16,500 00	
			$3,247,600 00

REPORT OF COMMITTEE ON FINANCE

The Committee on Finance of the City Council of 1910-1911 submits herewith its final report for the financial year ending March 31, 1911.

Below are given the estimates of the several departments and executive boards, except the School Committee, as received by the Mayor and subsequently considered by this Committee. The original estimates and recommendations are as follows:—

	Estimates	Mayor's recommendations	Committee recommendations
General Government	$122,453 32	$111,225 00	$108,516 00
Public Safety, etc.	348,801 21	325,338 00	329,920 00
Health, etc.	182,584 81	160,300 00	164,200 00
Highways, etc	334,599 96	275,300 00	287,942 88
Charities	58,718 18	52,300 00	52,300 00
Libraries	34,273 53	28,400 00	28,600 00
Recreation	55,024 00	35,350 00	40,100 00
Soldiers' Aid	30,200 00	29,000 00	29,000 00
Cemeteries	27,939 00	17,000 00	18,000 00
	$1,194,594 01	$1,034,213 00	$1,058,578 88

These recommendations were exclusive of the School Committee appropriations which are now under the charge of that board. The total amount recommended by the Committee was within the restricted sum of $7.00 per $1000-tax valuation, allowed by law for municipal expenditure other than for educational purposes.

The estimates for the Water Department were as follows:—

	Department estimates	Mayor's recommendations	Committee recommendations
Water Works	$359,134 25	$349,677 25	$349,677 25

The sum estimated for the expense of the department is not included in the tax levy, it being met from receipts from water charges to the takers.

The amounts recommended were tabulated under the various heads adopted in the Auditor's Department as follows:—

RECAPITULATION.

1—General Government	$108,516 00
2—Protection of Life and Property	329,920 00
3—Health and Sanitation	164,200 00
4—Highways and Bridges	287,942 88
5—Charities	52,300 00
6—Education	524,687 95
7—Libraries and Reading Rooms	28,600 00
8—Recreation	40,100 00
9—Soldiers' Benefits	29,000 00
10—Unclassified (Reserve Fund, $40,000; Damages, $2,000; Memorial Flag Pole, $500)	42,500 00
11—Interest	304,541 25
12—Cemeteries	18,000 00
13—Water Works	349,677 25
14—Sinking Funds	232,130 20
	$2,512,115 53

LESS

Education	$524,687 95	
Interest	304,541 25	
Sinking Fund	232,130 20	
		1,061,359 40
		$1,450,756 13
Net valuation for 1909	$106,745,163 00	
$12.00 per $1,000 on same is	1,280,941 95	
Deduct amount allowed to schools	524,687 95	
	$756,254 00	
Add estimated revenue and cash in treasury	902,050 41	
Total amount available for expenditure inside the $12.00 limit	$1,658,304 41	
Total amount of Committees' recommendations inside the $12.00 limit		$1,450,756 13
Add interest and Sinking Fund requirements		536,671 45
Add allowance for schools under Chapter 566, Acts of 1907		524,687 95
Add allowance for schools under Chapter 362, Acts of 1908		14,000 00
		$2,526,115 53
Less estimated revenue and cash in treasury April 1, 1910	902,050 41	
From which amount must be deducted for Temporary Loan borrowed in anticipation of 1909 taxes and due May 1, 1910	$160,000 00	
For difference between Water Works estimated revenue and Water Works Appropriation, Acts of 1865, 1875 and 1884	10,322 75	
	170,322 75	
		731,727 66
Leaving the amount to be provided for		$1,794,387 87

The Committee recommended that this amount be provided for by assessment upon the polls and estates of the inhabitants of Cambridge, etc., for the current year, being the amount required for Municipal and School Expenses for the year.....		1,794,387 87
The amount recommended by the Committee for the last year was.....		1,794,227 01
Mayor's recommendations (including School Committee expenditures)..		1,604,199 24
Showing a difference of		$190,027 77
This year (1910) amount recommended	$1,794,387 87	
Last year amount recommended.....	1,794,227 01	
Difference for 1910	$160 86	
Add the difference first mentioned....	190,027 77	
Showing actual difference between the Committee's and the Mayor's being an increase of	190,188 63	
This latter amount is made up as follows:		
Temporary loan before mentioned....	160,000 00	
(Not considered in the Mayor's estimate)		
Water Department surplus before mentioned	10,322 75	
Committees' figures over the Mayor's	19,865 88	
	$190,188 63	

In accordance with the foregoing recommendations the following orders were reported by the Committee:—

Ordered: That the following sums be and are hereby appropriated towards defraying the expenses of the City of Cambridge for the financial year beginning April 1, 1910, and ending March 31, 1911.

The several sums so appropriated were given in schedule accompanying the order.

Ordered: That the sum of One Million, Seven Hundred Ninety-four Thousand, Three Hundred Eighty-seven Dollars and Eighty-seven cents ($1,794,387.87) be raised by assessment upon the Polls and Estates of the inhabitants of the City of Cambridge, and the Estates of Non-resident Proprietors, according to law, to defray the current expenses of the City for the financial year beginning April 1, 1910, and ending March 31, 1911.

These recommendations were adopted by the City Council.

The following members of the Committee were appointed to examine the accounts of the City Treasurer and count the cash in the City Treasury at the close of business on the last day of the finan-

cial year, March 31, 1911. President Edward B. James, Alderman Marshall F. Blanchard and Councilman Peter J. Nelligan fulfilled the duties of this sub-committee. Their work was faithfully performed and they submitted the report as follows:—

To the Committee on Finance:

Gentlemen:—The Sub-Committee appointed to count and examine the cash in the hands of the City Treasurer at the close of business on March 31, 1911, would respectfully report:

March 31, 1911:—

Actual cash and business checks in City Treasurer's office amount to	$2,811 84	
Also certificates of deposit, showing balances at close of business, March 31, 1911, to the credit of the City Treasurer as follows:		
1—Harvaid Trust Co. of Cambridge....	131,343 65	
2—Cambridge Trust Co. of Cambridge	75,764 31	
3—Central Trust Co. of Cambridge....	75,592 43	
4—Charles River National Bank of Cambridge	88,087 66	
5—National City Bank of Cambridge..	2,435 26	
6—Lechmere National Bank of Cambridge	66,004 39	
Making total cash on hand.....		$442,039 54

April —, 1911. After the above examination by your Committee, additional entries belonging to the financial year ending March 31, 1911, were made as follows:

RECEIPTS

Account of City Clerk's Department...	$66 90	
Account of Licenses	10 00	
Account of Cemetery Department—Burials, etc.	242 40	
Account of City Home	74 53	
Account of City Home—Hospital	12 00	
Account of City Farm	992 27	
Account of House Offal.....	673 96	
Account of Park Department — Cambridge Field and Shelter	5 04	
A total of		$2,077 10
Which added to City Treasurer's cash balance as above makes a total of		$444,116 64
Deduct from this amount paid on account of partial payments on taxes, but held in suspense	$3,601 32	
Also bequest to Cambridge Public Library from estate of William P. Harding, held in suspense	1,000 00	
		4,601 32
Leaving a total of		$439,515 32
Amount carried forward.....		$439,515 32

Amount brought forward		$439,515 32

EXPENDITURES

Authorized additional payments as of March 31, 1911:		
Account of Damages to Persons and Personal Property	$35 00	
Account of Indemnification of Police Officer	740 50	
Account of Greater Boston Real Estate and Ideal Home Exposition	200 00	
Account of Interest on Water Loan	1,820 00	
Account of Sealer of Weights and Measures—Salaries	800 00	
Account of Water Department—Maintenance	19,292 55	
Account of Water Department—Pumping—General Expenses	200 00	
Account of weekly pay-roll draft, No. 282	7,958 43	
A total of		$31,046 48
Which deducted from the foregoing total of receipts shows a balance in the City Treasurer's hands as of March 31, 1911, of		$408,468 84

The Sub-Committee also examined the total cash receipts and expenditures as per City Treasurer's ledger, and find the same to be as follows:

Cash balance from March 31, 1910	$352,685 77	
Total cash receipts for year ending March 31, 1911	4,743,357 26	
A total of		$5,096,043 03
Total cash expenditures for year ending March 31, 1911		4,687,574 19
Which deducted from total receipts shows a cash balance as of March 31, 1911, as above of		$408,468 84

The above statements of receipts and expenditures were verified by comparison with the City Auditor's statement for year ending March 31, 1911. The Sub-Committee also examined the securities belonging to the Cemetery Fund, $83,858.90, and Sarah E. Russell Fund, $814.41, both held in trust by the City Treasurer, and find the same to be correct. The Sub-Committee in conclusion recommends that the so-called Trust Funds amounting to $25,000, heretofore considered in our City Reports, be hereafter designated as annuity liabilities of the City.

EDWARD B. JAMES,
MARSHALL F. BLANCHARD,
PETER J. NELLIGAN,
Sub-Committee on Finance.

The foregoing report was transmitted by the sub-committee for publication with the general report hereinbefore given.

EDWARD B. JAMES,
MARSHALL F. BLANCHARD,
PETER J. NELLIGAN,
JEREMIAH CORKERY,
JAMES F. BLACK,
IRVING N. LINNELL,
ALBERT M. CHANDLER,
JAMES W. COLEMAN,
FARWELL E. THAYER,
ROGER D. SWAIM,
Committee on Finance.

REPORT OF THE SUPERINTENDENT OF STREETS

To the Honorable, the City Council:—

GENTLEMEN:—In accordance with the provisions of Section 4, of Chapter 25 of the Revised Ordinances of the City, the annual report of the Superintendent of Streets for the fiscal year ending March 31, 1911 is herewith respectfully submitted.

The regular appropriations of the department, provided out of the tax levy, are first treated and are followed by the special appropriations, funds of which were provided by issues of bonds.

BRIDGES

Appropriation		$5,500 00
Additional appropriation		100 00
Transferred from crossings		466 00
		$6,066 00
Pay-roll, drawtenders	$4,657 70	
Labor, First Street Bridge	155 25	
Labor, Third Street Bridge	96 28	
Labor, Sixth Street Bridge	7 00	
Labor, Mt. Auburn Street Bridge	114 00	
Labor, Wellington Street Bridge	34 50	
Materials, First Street Bridge	466 83	
Materials, Third Street Bridge	227 75	
Materials, Sixth Street Bridge	3 62	
Labor, Walden Street Bridge	5 50	
Materials, Wellington Street Bridge	31 02	
Materials, Huron Avenue Railroad Bridge	64 59	
Materials, Huron Avenue Pipeway Bridge	44 59	
Materials, Mt. Auburn Street Bridge	157 14	
		6,065 77
		$ 23

REBUILDING SIXTH STREET BRIDGE

Appropriation		$5,500 00
Payroll	$229 51	
Teaming	3 00	
Contract, Geo. T. Rendle	4,912 40	
Sundries	7 00	
		5,151 91
Balance		$348 09
Transferred to Street Cleaning		348 09

BRIDGES

During the year First Street Bridge required a complete patching of both upper and lower decks. Third Street Bridge will require a similar treatment the coming year and I propose to lay specially treated lumber here with the idea of making the lower surface last longer. The present decking, laid when the bridge was rebuilt in 1908, is practically worn out.

SIXTH STREET BRIDGE

This bridge has been in poor condition for some years. In accordance with the recommendations made in past years an order was passed in 1910, for the reconstruction of the bridge. A contract was accordingly made with Mr. George T. Rendle, of Boston, on August 1, 1910, to rebuild the entire top of the bridge for the contract price of $4,860.00. The bridge was rebuilt on practically the same lines as the old one with a draw 32 feet 6 inches wide. The contract was completed November 9, 1910. The total cost of the work, including raising the grade of the street, and incidental work was $5,151.91.

MASSACHUSETTS AVENUE BRIDGE OVER ALEWIFE BROOK

One of the retaining walls at this bridge is in a bad and dangerous condition and should be relaid and made safe at once.

WELLINGTON BRIDGE OVER ALEWIFE BROOK

This small bridge is in bad condition and should be rebuilt this coming season.

OTHER BRIDGES

The other bridges, Walden Street, Huron Avenue and Fountain Terrace Bridges are in fairly good condition and will only need partial repainting and some repairs on the cinder protective covering.

REPAIRS ON MOUNT AUBURN STREET BRIDGE

Appropriation		$250 00
Payroll	$49 50	
Hardware, tools, etc.	9 80	
Lumber	190 53	
		249 83
Balance		$ 17

MT. AUBURN STREET BRIDGE

This bridge required a new upper surface for which the above appropriation was made, but upon removing the same the lower deck was found to be badly rotted and required a thorough patching.

This was done out of the regular Bridge appropriation. The bridge is in fairly good shape and should require little attention the coming year.

COLLECTION OF ASHES

Appropriation		$44,600 00
Additional appropriation		2,500 00
		$47,100 00
Payroll	$36,893 03	
Teaming	459 00	
Hay	2,517 36	
Grain	3,417 40	
Straw	167 78	
Hardware, tools, etc.	14 33	
Harness, repairs, etc.	240 59	
Wagon repairs	361 26	
Painters' supplies	182 20	
Horse shoeing and stock	79 10	
New equipment	830 00	
Salary of foreman	1,200 00	
Ash cart covers	105 00	
Dumping privileges	617 33	
Sundries	14 90	
		47,099 28
		$ 72

YEAR	Number of Cubic Yards Collected	Amount Expended	Unit of Cost Per Cubic Yard
1905	100,084	$32,499 23	$.324
1906	106,106	33,686 46	.316
1907	113,604	37,458 48	.329
1908	122,901	40,152 36	.319
1909	132,146	44,599 62	.337
1910	141,301	47,099 28	.333

The accompanying table shows that the amount of material collected still continues to increase as well as the expense of collection and there is every reason to believe that the coming year will show a still greater increase.

The great expense is due two reasons. First, to the larger amount of material produced each year, and secondly, to the distance that it is necessary to haul the material to dumping places.

The area of the city is about six and one-half miles and within a comparatively short time we shall have to haul the material from over this entire area to the northern end of the city. Naturally, the expense of hauling will increase tremendously unless some more economical method than the one now in vogue is devised.

A careful study of several plans is now being made by the Street Improvement Commission with this idea in view.

There is need of a small incinerator plant at Raymond Street Yard which could consume practically all of the light refuse collected in the upper wards. At present this is distributed over the dumps and is a nuisance, both because of the burning and the blowing about the streets in that vicinity. I am of the opinion that such a plant as is contemplated could be constructed at a cost not exceeding $5,000.00, and I recommend an appropriation of that amount to the City Council. The combustion of this material under this plan would be highly appreciated by the citizens in that vicinity.

Some revenue might be derived by leasing such a plant to private individuals for the privilege of separating the marketable part of the refuse and disposing of it. The balance would be burned.

Two new Shadbolt carts have been added to the equipment during the year and several of the old horses replaced with new ones.

The department has been forced to expend over $600.00 this year for the privilege of using private lands for dumping purposes.

INCINERATOR—MAINTENANCE

Appropriation		$4,300 00
Pay roll	$3,942 30	
Furnace, engine and boiler supplies	124 59	
Additions and repairs	158 94	
Hardware, tools, etc.	45 82	
Sundries	18 10	
		4,299 86
		$ 14

INCINERATOR

The incinerator has been run every week day during the year and has consumed 4,336 loads of light refuse delivered by city teams and 2,807 loads brought in by outsiders.

The plant, as a whole, is in good condition and outside of a few repairs to the arch inside the furnace, will require but little repairs the coming season.

As noted in previous reports, no practical use has yet been made of the steam pressure generated there on account of the fact that it is run but eight hours per day. With the proposed enforced separation put into effect, I believe that some different arrangement will be instituted and it may be necessary to put a night shift there.

Great quantities of marketable material are consumed there annually, which might be sorted out and sold and I would recommend this matter to the serious consideration of the City Council.

STREET CLEANING AND SNOW REMOVAL

Appropriation		$42,000 00
Additional appropriation		1,000 00
Transferred from rebuilding Sixth Street Bridge		348 09
		$43,348 09
Payroll, general	$13,468 75	
Payroll, section men	16,339 50	
Teaming	4,683 76	
Hay	1,081 67	
Grain	754 45	
Hardware, tools, etc.	347 88	
Harnesses, repairs, etc.	48 55	
Refilling machine sweeper brooms	132 10	
Machine sweeper repairs	10 80	
New equipment	84 00	
Salt	4 50	
	$36,955 96	
Snow removal expenditures	6,392 13	
		$43,348 09

SNOW REMOVAL

Payroll, general	$3,050 09
Payroll, schoolhouse work	530 50
Payroll, section men	2,067 00
Teaming	201 00
Grain	269 64
Hardware, tools, etc.	236 05
Salt	4 50
Gravel	31 35
Road machine repairs	2 00
	$6,392 13

The season of 1910 has been a trying one on our streets. The construction of the subway with its attendant heavy teaming made our streets unusually muddy and dusty, so that while more actual cleaning was done by the department the past year than ever before, the improvement does not appear as it should. For this reason the usual night sweeping was discontinued.

The usual spring and fall cleaning was performed this year. Some additions have been made to the section force during the year and most of the main thoroughfares are now patrolled.

The amount expended for removing snow was $6,392.13, which compares with $8,131.25 last year.

A liberal appropriation should be provided for this work the coming year as there is no branch of the work that shows neglect more forcibly.

MAINTENANCE—GENERAL

Appropriation		$69,500 00
Additional appropriation		2,000 00
Transferred from Park Department—horse board		432 00
Transferred from Sealer of Weights and Measures —horse board		216 00
Additional appropriation for Lansdowne Street		400 00
Transferred by City Auditor		98 20
		$72,646 20
Payroll, fixed charges	$23,143 85	
Payroll, street work	21,671 63	
Teaming	1,980 75	
Hay	1,576 32	
Grain	2,167 94	
Hardware, tools, etc.	832 46	
Harnesses, repairs, etc.	452 13	
Lumber	245 68	
Horseshoeing stock and tools	397 86	
Steam rollers, repairs and supplies	876 67	
Stone crushers, repairs and supplies	290 72	
Field stone	415 45	
Crushed stone	10,880 63	
Gravel	245 62	
Fuel	1,713 95	
Street signs	229 53	
Lighting	687 65	
Telephones and office supplies	527 13	
Additions and repairs to yards and stables	515 94	
New equipment	261 01	
Carriage and wagon repairs	458 10	
Painters' supplies	380 86	
Stable supplies	393 62	
Special road treatment	1,838 55	
Cement	241 00	
Sundries	220 15	
		$72,646 20

The amount of money available this year was over $3,700.00 larger than last year, so that a much larger yardage was resurfaced. For several years past there has not been sufficient appropriation for this work. Consequently, many streets have been left from year to

year and at the present time there are a large number requiring new surfaces. The wear and tear of the past two years of the subway construction have worked havoc with many of the older macadam streets and they can be neglected no longer. Less than one-half of the appropriation can be used for street work as the balance has to cover the running expenses of the department. With ninety-four miles of macadam streets to care for out of this appropriation it is little wonder that so many of our streets are out of repair.

There is urgent need of a new steam roller in the department to take the place of the old single-engine Oastler.

Repairs are badly needed on the stables and sheds in both yards. This matter has been put off from year to year on account of lack of funds. Some of the more necessary repairs will have to be undertaken this season.

The general equipment of this division is in fair condition, but several new horses and wagons are needed.

Lansdowne street was laid out and accepted from Green street to Franklin street the past year and the sum of $400.00 was appropriated and expended in placing this section of the street in condition for travel.

The following streets were constructed with the "X" grade of Tarvia during the season:

Brattle street, from Sparks street to Elmwood avenue.

Rice street, entire.

Mt. Auburn street, from the railroad bridge to the cemetery gate.

Prospect street, from the Somerville line to Cambridge street.

The surfaces of these streets were loosened up and a course of egg stone applied and rolled. Tarvia "X" was then applied, about one gallon to the square yard. A thin course of pea-size stone was then rolled into the top of the road. In all, 13,405 square yards were thus treated and the average cost was about 39 cents per square yard. I have several other streets in mind for similar treatment the coming year.

RESURFACING DISTRICT ONE.

	Labor	Teaming	Steam Roller	Crushed Stone	Gravel	Tarvia	Totals	Square Yards
Allston, between Sidney and Waverly	$85 25	$132 00	$35 00	$232 50	$7 00	.....	$491 75	1,183
Amherst, between Ames and Carleton	43 50	60 00	28 00	119 00	.....	.....	250 50	1,233
Athenaeum, between First and Second	25 00	36 00	14 00	156 00	.....	.....	231 00	500
Auburn, between Blanche and Brookline	32 75	36 00	10 50	57 50	112 50	.....	249 25	1,145
Cherry, between Main and Harvard	111 25	187 00	49 00	335 00	8 00	.....	690 25	1,704
Chestnut, between Brookline and Sidney	38 25	66 00	31 50	102 50	.....	.....	238 25	934
Cottage, between Brookline and Pearl	158 50	187 00	84 00	360 00	16 00	.....	805 50	2,289
Erie, between Brookline and Sidney	91 00	114 00	28 00	207 50	1 00	.....	441 50	1,183
Erie, between Brookline and Magazine	104 50	132 00	49 00	238 00	.....	.....	523 50	2,289
Florence, between Pleasant and Magazine	56 25	78 00	28 00	120 00	66 00	.....	348 25	1,444
Franklin, between Bay and Hancock	69 00	102 00	28 00	215 00	3 00	.....	417 00	802
Franklin, between Bay and Soden	71 25	84 00	28 00	147 50	116 00	.....	446 75	2,300
Fourth, between Charles and Vine	18 25	18 00	7 00	129 00	.....	.....	172 25	488
Glenwood Ave., between Pearl and Magazine	70 75	120 00	17 50	217 50	.....	.....	425 75	1,110
Green, between Lansdowne and Blanche	50 00	147 75	42 00	200 00	11 00	.....	450 75	950
Grigg, between Putnam Ave. and Howard St.	85 75	108 00	56 00	175 00	320 00	.....	744 75	2,030
Hews, between Grigg and Western Ave	39 50	42 00	14 00	72 50	86 00	.....	254 00	666
Jay, between River and Western Ave	61 38	112 50	42 00	182 50	.....	.....	398 38	916
Kinnaird, between Western Ave. and Putnam Ave.	104 50	180 00	59 50	275 00	287 00	.....	906 00	2,566
Lansdowne, between Mass. Ave. and Green	67 75	145 00	49 00	235 00	6 00	.....	502 75	1,000
Lawrence, between Pearl and Magazine	67 00	102 00	21 00	142 50	9 00	.....	341 50	1,043
Magee, between Grigg and foot of hill	54 50	90 00	28 00	132 50	.....	.....	305 00	1,277
Pearl, between Putnam Ave. and Granite	72 75	120 00	49 00	222 50	201 00	.....	665 25	2,666
Prospect, between Cambridge and Somerville Line	67 50	80 25	38 50	148 75	.....	150 50	485 50	1,163
Putnam Ave., between River and Western Ave.	21 00	9 00	35 00	21 38	.....	.....	86 38	2,275
Putnam Ave., between Brookline and Sidney	59 50	66 00	21 00	102 50	.....	.....	249 00	916
Salem, between Auburn and Watson	24 25	35 25	14 00	61 25	.....	.....	134 75	347
Seventh, between Cambridge and Gore	39 25	30 00	21 00	60 00	2 00	.....	152 25	396
Sidney, between Erie and Allston	33 50	42 00	14 00	94 00	126 00	.....	309 50	1,111
Sixth, between Main and Spring	346 25	565 50	203 00	1,028 75	35 00	.....	2,178 50	6,371
Sixth, at approach to bridge	71 50	102 50	35 00	140 00	.....	.....	349 00	1,333
Tufts, between Pearl and Magazine	99 00	102 00	42 00	140 00	.....	.....	383 00	1,100
Watson, between Brookline and Pearl	92 00	150 00	35 00	242 50	7 00	.....	526 50	1,074
Webster Ave., between Cambridge and Lincoln	117 50	139 00	42 00	233 75	10 00	.....	542 25	2,275
Valentine, between Brookline and Pearl	80 50	90 00	24 50	140 00	.....	.....	335 00	1,420
Vine, between Third and Lowland Ave.	20 00	21 00	14 00	113 00	.....	.....	168 00	511
Totals	$2,650 38	$3,831 75	$1,337 00	$6,800 38	$1,429 50	$150 50	$16,199 51	52,010

RESURFACING DISTRICT TWO.

	Labor	Teaming	Steam Roller	Crushed Stone	Filling Gravel	Tarvia	Totals	Square Yards
Avon, between Shepard and Martin	$17 00	$27 50	$21 00	$47 00	.....	.....	$112 50	220
Brattle, between Sparks and Elmwood Ave	391 06	617 37	297 50	1,122 50	.....	$743 82	3,172 25	8,446
Buckingham, between Healey and Parker	30 50	85 12	36 75	150 00	.....	.....	302 37	620
Crescent, between Sacramento and Oxford	36 00	34 00	28 00	42 50	$120 75	.....	261 25	1,168
Elmwood Ave., between Brattle and Mt. Auburn	112 50	242 00	77 00	347 00	.....	.....	778 50	2,225
Fairfield, between Rindge Ave. and Pemberton	58 25	106 37	63 00	247 50	.....	.....	475 12	1,552
Gurney, at Huron Ave	38 00	53 13	26 25	103 75	.....	.....	221 13	517
Hollis, between Mass. Ave. and Rindge Ave	14 00	28 75	24 50	40 00	.....	.....	107 25	1,160
Larch Road, between Huron Ave. and Parkway	29 50	61 50	21 00	71 25	.....	.....	183 25	317
Mass. Ave., between Waterhouse and Garden	89 50	47 00	42 00	37 50	256 50	.....	472 50	3,100
Meacham Road, between Mass. Ave. and Som. Line	51 88	71 00	42 00	167 50	.....	.....	332 38	1,060
Mt. Auburn, between R.R. bridge and Cemetery gate	90 69	193 75	59 50	292 50	.....	227 08	863 52	1,550
Rice, between Mass. Ave. and Sheridan Sq	119 06	163 00	73 50	367 50	.....	195 79	918 85	2,356
Rindge Ave., between Mass. Ave. and Haskell	99 75	177 75	105 00	355 00	.....	.....	737 50	2,183
Sacramento, between Mass. Ave. and Som. Line	117 50	64 00	56 00	713 75	.....	.....	951 25	3,956
Walker, at Shepard	17 00	17 00	14 00	96 25	.....	.....	144 25	645
Totals	$1,312 19	$1,989 24	$987 00	$4,201 50	$377 25	$1,166 69	$10,033 87	31,075

RECAPITULATION

Patching, District I	$2,383 44
Patching, District II	3,437 35
Resurfacing, District I	16,199 51
Resurfacing, District II	10,033 87
Totals	$32,054 17

CROSSINGS

Appropriation		$2,500 00
Payroll	$996 55	
Teaming	69 00	
Grain	13 00	
Granite flagging	452 24	
Gravel	53 11	
Vitrified blocks	450 00	
		2,034 00
Balance, transferred to bridges		$466 00

Owing to the fact that the construction work on streets was not begun until late in the season, it was not possible to continue the crossing work as all available labor was utilized to complete the construction work before the frost set in.

Several of the crossings on Harvard street, which are still below grade, should be removed this season. There are many old block crossings which are rough and unsightly, which should be replaced by vitrified brick or flagging.

We should be able to construct many new ones this year as there will undoubtedly be a large number of requests for them.

SIDEWALK REPAIRS

Appropriation		$5,000 00
Additional appropriation		1,500 00
		$6,500 00
Payroll	$5,838 67	
Teaming	39 75	
Hay	167 24	
Grain	94 21	
Bricks	124 03	
Gravel	131 48	
Repairs, artificial stone sidewalks	75 00	
Edgestone	22 03	
Sundries	7 50	
		6,499 91
		$ 09

The original appropriation for this work was exhausted early in the summer and an additional amount had to be provided.

The Park Department continues to remove dead trees throughout the city and we have not been able to repair all the openings. A much larger amount must be provided this year as these openings are dangerous and must be filled in.

If the appropriation is large enough, I should like to keep a small paving gang on this class of work the entire season, as there is plenty of work straightening edgestones and relaying defective sidewalks.

MAINTENANCE—SALARIES

Appropriation		$6,820 00
Salary of Superintendent	$2,500 00	
Salary of Chief Clerk	1,283 32	
Office Clerks	1,425 00	
Salary of Yard Clerks	1,611 00	
		$6,819 32
		$ 68

STREET WATERING

Appropriation		$36,000 00
Additional appropriation		700 00
		$36,700 00
Payroll, general	$1,256 58	
Payroll, clerical work	69 25	
Salary of foreman	1,200 00	
Sprinkling payroll	28,926 26	
Hay	42 00	
Grain	177 74	
Hardware, tools, etc.	8 01	
Harnesses, repairs, etc.	1 50	
Watering renewals and repairs	361 79	
Standpipe repairs	97 85	
Special road treatment	4,547 30	
Sundries	11 10	
		36,699 38
		$ 62

Several different preparations for laying the dust have been used on the streets during the past season.

Speare's "Road Binder" was applied on several streets early in the season. This product was mixed with twelve parts of water and applied from an ordinary watering cart. The average cost per yard for each treatment was about $ .003. It was repeated in about two weeks. In all, 5,800 gallons of this material were used.

Standard Emulsifying Oil was tried on other streets. This prod-

uct was mixed with six parts of water and applied from the watering cart. The average cost per treatment was about $ .003 per square yard. The second application was made in about two weeks and continued intermittently until about the middle of September. The results obtained were very satisfactory.

Asphaltoilene was applied on Brattle street, from Hawthorne to Craigie street, in July. This treatment cost six cents per square yard and was laid by the Good Roads Improvement Company.

Late in the season 500 gallons of Standard Asphalt Macadam Binder was applied to Harvard street, between Prospect and Norfolk streets, and 1,000 gallons of the 60% Standard Asphalt Road Oil was applied to Harvard street, from Columbia street to Norfolk street.

In November the large automobile spraying machine was demonstrated on several streets in the city. The 30% asphalt oil is applied hot, under pressure from this machine. Several other streets were treated in December with the machine. While this work was done in cold weather, the results obtained were excellent and I purpose continuing this treatment in the spring. The oil is applied evenly and its absorption into the road is greatly facilitated by the pressure and heat.

We also used 7,997 gallons of Texas Oil on several streets in the northern end of the city and found one application to give good results as water was needed on the streets only late in the year.

We have continued the use of the "B" grade of Tarvia on several of the main thoroughfares that already had good surfaces and have thereby both preserved them from the destroying influence of the automobile tire and kept them dustless. There have been 15,899 gallons used during the year and over 30,000 square yards of road covered.

Naturally, some complaints were received on account of this preventative treatment, but, on the whole, I believe that the entire work was appreciated.

An unusually dry season kept the watering carts in commission practically up to the first of December. The application of dust preventatives made it possible to shorten many of the longer routes and the service was much improved thereby.

The coming season should see even greater progress in this line of work as the prevention and abatement of the dust nuisance is fast passing the experimental period.

EDGESTONES AND SIDEWALKS

Appropriation		$8,812 44
Additional appropriations		17,200 00
		$26,012 44
Payroll	$10,698 73	
Teaming	345 00	
Hay	152 13	
Grain	110 60	
Straw	58 13	
Hardware, tools, etc.	230 62	
Bricks	6,024 19	
Edgestone	5,798 91	
Gravel	1,016 43	
Rebates, artificial stone walks	1,316 73	
Lighting	229 67	
Sundries	31 09	
		26,012 23
		$ 21

We have had an exceptionally busy year in this division. There has been over 10,000 feet of stone set and over 10,000 square yards of brick sidewalk laid. Owing to the fact that we had sufficient gutter stone on hand, none were purchased, enabling us to do more edgestone work.

The city rebates the sum of six cents per square foot on all granolithic work where no previous brick walk has been laid and the amount expended on this item this year of $1,316.73, as compared with $401.12 for last year, indicates the growing demand for this class of sidewalk.

The city has been able to obtain a better price on edgestones and brick for the coming season than for many seasons. Many property owners who have postponed this improvement for years on account of the expense should take advantage of this year's price, as under ordinary conditions it will not prevail again.

SPECIAL FOR HORSES

Appropriation	$5,000 00
Horses	5,000 00
	$ 00

HORSES

The equipment of horses in this department has been improved this past year by the addition of eight and the replacement of five old ones, making the total number now owned, seventy-two.

There is yet need of at least ten more to replace old ones and to provide for additional ash carts the coming season.

I shall include the sum of $2,500.00 for this purpose in the annual estimates.

HADLEY STREET

Appropriation (out of $75,000 loan)		$856 15
Payroll	$398 25	
Grain	27 56	
Gravel	18 60	
Crushed stone	93 72	
Edgestone	318 02	
		$856 15

This street was constructed from Massachusetts avenue to the end, out of the balance of the $75,000 loan of last year.

Edgestones have been set and a macadam surface constructed which was badly needed.

OTIS STREET

Appropriation (balance from 1909)		$219 90
Payroll	$43 50	
Teaming	54 00	
Hay	10 00	
Crushed stone	36 85	
Fieldstone	37 53	
		181 88
Balance		$38 02

This section of Otis street, between Ninth street and the Boston & Albany Railroad, is now complete with edgestones, gutters and macadam roadway.

AMES STREET

Appropriation (20-year loan)		$12,000 00
Payroll	$3,867 91	
Teaming	598 50	
Hay	18 50	
Grain	131 15	
Hardware, tools, etc.	42 39	
Gravel	392 59	
Granite blocks	6,711 97	
Sewer work	235 91	
		11,998 92
Balance		$1 08

In response to a demand from the owners of the new factories built on this street, it was paved from Main street to Amherst street with Quincy granite blocks on a gravel base. This gives an entrance for heavy teaming from Main street.

Edgestones have been set on both sides of the street and gravel sidewalks constructed and the whole street now presents an attractive appearance.

REBUILDING ALBANY, ERIE AND CHARLES STREETS

Appropriation (20-year loan)		$27,000 00

ALBANY AND ERIE STREETS

Payroll	$3,251 02
Teaming	667 50
Hay	42 00
Grain	28 60
Hardware, tools, etc.	36 30
Gravel	466 95
Cement	228 00
Granite blocks	5,971 03
Sewer work	13 35
	$10,704 75

CHARLES STREET

Payroll	$1,130 39
Teaming	831 00
Lighting	32 20
Granite block paving contract	13,144 78
Sundries	6 50
	$15,144 87

Totals:		
Albany and Erie Streets	$10,704 75	
Charles Street	15,144 87	
		25,849 62
Balance		$1,150 38

Albany street, from Massachusetts avenue to Pacific street, was paved with granite blocks in 1907 and was completed from Pacific street to Erie street the past season. Erie street was commenced from its junction with Albany street and at the present time is paved with granite blocks as far as Waverly street. Both streets are paved with Quincy granite blocks.

Albany street is grouted with Portland cement from Pacific street a distance of about 250 feet. The remainder of the street was not grouted, anticipating the construction of a main sewer through it in a short time.

The manufacturing sites along this street are fast being built upon and the business interests along the street appreciate the improvement highly, as the previous condition of the street, especially in wet weather, was almost impassable.

Charles street, from Third street to Sixth street, was paved with the new Hassam block pavement. This department excavated the street to a depth of ten inches. The balance of the work was completed by contract with Simpson Brothers Corporation. A four-inch concrete base was first laid and rolled by the Hassam method. Upon this base was spread a two-inch sand cushion. Four-inch New Hampshire granite blocks were then paved on the sand cushion and the whole thoroughly grouted with Portland cement.

This is the first street laid by this method in the city and cost, after deducting the proper credits, $3.07 per square yard.

The street, as completed, presents a fine appearance and is not slippery. It is pleasant to ride over and I am of the opinion that it is much less noisy than ordinary granite pavement.

MASSACHUSETTS AVENUE, PROSPECT STREET AND PUTNAM AVENUE

Appropriation (10-year loan)		$50,800 00
MASSACHUSETTS AVENUE		
Payroll	$4,971 24	
Teaming	310 50	
Hay	43 04	
Grain	272 67	
Hardware, tools, etc.	5 47	
Gravel	47 71	
Crushed stone	1,342 39	
Bitulithic surface	16,350 18	
Fuel	102 01	
Lighting	66 60	
Sundries	5 50	
	$23,517 31	
PROSPECT STREET		
Sundries	$5 00	
PUTNAM AVENUE		
Payroll	$5,851 14	
Teaming	1,950 75	
Hay	77 75	
Grain	51 60	
Hardware, tools, etc.	326 84	
Gravel	228 27	
Cement	832 90	
Pitch	288 20	
Vitrified blocks	7,913 74	
Lighting	26 95	
Concrete base contract	4,230 96	
Sundries	23 12	
	$21,802 22	
Totals:		
Massachusetts Avenue	$23,517 31	
Prospect Street	5 00	
Putnam Avenue	21,802 22	
		45,324 53
Balance		$5,475 47

Massachusetts avenue, paved in 1909 with bitulithic pavement from Cambridge Station to Martin street, was completed to Waterhouse street this year. There are now 19,015.5 square yards of this pavement on this main thoroughfare laid under a five-year guarantee. The work of excavating the base, spreading and rolling the stone was performed by this department and the two-inch bitulithic surface was applied by Warren Brothers Company. The track strip was not surfaced. The old blocks were relaid and the two rows along the outside rail were laid in cement mortar and grouted with cement.

MASSACHUSETTS AVENUE, LOOKING NORTH FROM WATERHOUSE STREET,
SHOWING BITULITHIC PAVEMENT

This pavement has improved the appearance of this broad avenue wonderfully and has been most favorably commented upon by both residents and those who drive over it. It is not slippery, is easily kept clean and it is not noisy. The accompanying cut shows the finished street.

Putnam avenue, from Mount Auburn street to Western avenue, was completed with vitrified brick pavement this year. The original estimate called for completion to River street, but the cold weather closed the work at Western avenue. The completion of this avenue should be one of the first considerations this spring. The excavation of the subgrade was performed by the department and the four-inch concrete base was laid by William J. Barry of Boston, under contract. The rest of the work was performed by this department with city labor. The street was laid with the Mack block. The improvement was badly needed as there is a great deal of team traffic through the street. When the balance is completed in the spring, the avenue will be paved with vitrified bricks from Mount Auburn street to Brookline street.

The work on Prospect street was not commenced as the general order for all these streets was not passed until late in the summer and the other two streets were constructed first and not completed until cold weather. This street will probably be considered some time in the spring of 1911. It was intended to lay wooden block pavement from Massachusetts avenue to Austin street. The Boston Elevated Railway Company took out half of the brick street originally there to relay pipes on account of the subway, so that the amount appropriated for this street represents one-half of the estimated cost.

PERMITS

OPENING PERMITS

Boston Elevated Railway Co.	24	
Boston & Maine R. R. Co.	7	
Boston Consolidated Gas Co.	8	
Cambridge Electric Light Co.	119	
Cambridge Gas Light Co.	434	
Metropolitan Water and Sewerage Board	1	
New England Tel. & Tel. Co.	54	
Water Department	7	
Drain layers	181	
Miscellaneous	34	
	——	869

OBSTRUCTION PERMITS

Dust removing wagons	167	
Tar kettle contractors	26	
Miscellaneous	598	
	——	791
Moving buildings		9
Board walks		76

ARTIFICIAL STONE SIDEWALKS

Thomas Allen	1	
William F. Condon	7	
William Crane	1	
Benjamin Fox, Inc.	1	
Walter J. Grosvenor & Son	1	
Thomas J. Hind	6	
W. A. Murtfeldt Co.	2	
Simpson Bros. Corp.	5	
Warren Bros. Co.	9	
Frederick O. White	1	
	——	34
Selling goods on sidewalks		69
Steam rollers passing through streets		3
Grand total		1,851

The issuing of permits continues to be an important feature of the office work. The preceding table shows in detail the number and kinds of permits issued.

RECOMMENDATIONS

As outlined elsewhere in this report, an inexpensive incinerator is recommended for construction on the city property at Raymond Street Yard, to burn all light refuse from the northern end of the city.

The compulsory separation of ashes and light refuse is strongly recommended throughout the city. This will be absolutely necessary in order to make the new plans for disposal a success. Printed circulars setting forth instructions to householders and tenants will have to be printed in several languages and distributed all over the city. This light material constitutes a nuisance at the present time and should be incinerated immediately after collection and not allowed to burn on dumps or blow about.

I would recommend that a trestle be constructed in place of the spur track now in the Raymond Street Yard so that stone and gravel might be delivered in bottom-dumping cars and dumped into bins directly beneath. From these bins teams could be loaded by simply releasing a lever. This would undoubtedly pay for itself in a short time by its saving in labor. Some such arrangement is badly needed for unloading, by gravity, tank cars of road oil.

If we are to continue the modern methods of dust laying a storage plant should be installed at the Raymond Street Yard where oils and emulsions could be handled economically. At present tank cars have to be unloaded into carts directly from the rail and under the new demurrage rules this practice will probably entail considerable expense.

I believe that Commercial avenue should be opened up to traffic and constructed during the coming year. This will make an important thoroughfare and a large number of manufacturing interests will be greatly accommodated by having a direct route from First street to the Charles River Dam over a street with hardly any grade. At present all the traffic bound for the freight yards of the Boston & Maine Railroad in Charlestown has to pass over First street, which is over 1200 feet farther than the route through Commercial avenue. I am of the opinion that the completion of this street would attract new manufacturing enterprises into this section, which is open to great improvement.

The question of replacing the pavements on Main street and Massachusetts avenue, which have been disturbed by the construction of the subway, has had the attention of the Street Improvement Commission and will be made the subject of a special report which will be published later. This is one of the most important considerations

of the year and I should recommend the best class of pavement obtainable for both of these main thoroughfares. With proper financial assistance from the Boston Elevated Railway Company, I see no reason why permanent improvements cannot be commenced this year.

Mount Auburn Street should be completed with bitulithic pavement from where the work stopped in 1909 to the Belmont Line. This is the main highway from all towns to the west of Cambridge and is in very poor condition at the present time.

Broadway, from Ellsworth avenue on the north side and Hancock street on the south side, should be completed with bitulithic pavement to Prospect street the coming season. The present macadam surface is badly rutted and the improvement would be greatly appreciated.

Prospect street will require extensive repairs this year on the brick pavement. The traffic on this street is concentrated to the two narrow driveways between the rails and the curb, so that many places are in immediate need of patching.

Third street, from Charles to Spring, should be paved with granite block.

State street, from Main to Windsor street, needs a granite block surface to withstand the heavy teaming traffic from the factory section west of Massachusetts avenue.

I would recommend the installing of motors on the Sixth street bridge early this year. This bridge rises and falls very slowly, which makes it extremely inconvenient for the foot and team traffic. The two other canal bridges have the motors.

We have had a most successful year and it has been most gratifying to me to realize that at all times and in all situations I have had the encouragement and support of His Honor, the Mayor, and I desire to extend to him my heartiest appreciation.

The Committee on Highways deserves great credit for the prompt and efficient manner in which it has expedited all matters which have come before it. The Committee on Finance has accorded me the most generous treatment, for which I am duly grateful.

The spirit of co-operation by the employees in the department is recognized and commended.

EDWARD W. QUINN,
Superintendent of Streets.

INVENTORY OF REAL AND PERSONAL PROPERTY

REAL ESTATE

Location.	Buildings.	Erection of Buildings.	Purchase of Land.	Feet of Land.	Valuation of Land.	Valuation of Buildings.
Raymond St	City Yard and Stable, stable, sheds, scales, etc.....	1897	1896	272,670	$27,000	$27,000
Hampshire St...	City Stable, sheds and scales, including old police station.....	1885	.....	72,661	30,000	16,000
E. S. Norfolk St.	Yard and pound.....	.....	.....	34,650	10,400	.....
River St.....	Yard and wharf.....	.....	.....	41,546	17,000	.....
Acton, Mass....	Land, gravel bank....	.....	1896	.....	3,000	.....
Main St.....	Land and Incinerator plant.....	1908	.....	93,424	31,900	18,000
					$119,300	$61,000

Total valuation of real estate.....$180,300

PERSONAL PROPERTY

72 horses	$14,000 00	
53 watering carts	13,000 00	
60 single and double carts	5,200 00	
101 sets harness	2,500 00	
Miscellaneous buggies, sleighs, pungs, plows, wagons, etc.	2,500 00	
3 bicycles	50 00	
5 steam rollers	11,000 00	
1 scarifier	450 00	
Miscellaneous tools, road machines, pick-up sweepers, scrapers, brooms, waste barrels, push carts, etc.	9,000 00	
Stone-crushing plant, Raymond Street	5,000 00	
Stone-crushing plant, Hampshire Street	5,000 00	
Furnace and boiler, incinerator	12,000 00	
10 Shadbolt carts	3,300 00	
2 Watson carts	300 00	
Miscellaneous lumber, iron, tools, etc.	2,000 00	
130 feet straight edgestone	72 15	
40 feet circle edgestone	28 00	
75,000 granite paving blocks, seconds	1,875 00	
7,000 sidewalk bricks	88 55	
13,500 vitrified bricks	391 50	
44 feet granite flagging	32 12	
200 tons field stone	150 00	
100 tons crushed stone	110 00	
6 barrels cement	9 12	
12 tons coal	54 92	
		$88,111 36
Total		$268,411 36

REPORT OF THE COMMISSIONER OF BOSTON AND CAMBRIDGE BRIDGES

To the Honorable, the City Council:—

GENTLEMEN:—In accordance with the provisions of Section 3, Chapter 5, of the Revised Ordinances, the undersigned respectfully submits his report for the fiscal year ending March 31, 1911.

PRISON POINT BRIDGE

This bridge has been resheathed during the past year. I would recommend that the draw be repainted this year. The drawtenders' house on this bridge is in very poor condition and a new building is urgently needed.

CAMBRIDGE BRIDGE

This bridge is in very good condition, and outside of some patch painting under the central curbs but little repairs will be required.

HARVARD BRIDGE

During the past year considerable repairs have been made on the entire bridge. Both piers have been entirely replanked, as they were in actually dangerous condition. The wood block pavement on the bridge is fast becoming disintegrated and has required extensive repairs the past year. Over 400 square yards were patched and it will be necessary the coming year to go over much more of it.

For the past three years the Commissioner has recommended the painting of this bridge. This is needed to protect the iron work, which is scaling badly all over the bridge. The time has come when this work can be neglected no longer and should be commenced at once as a measure of economy.

BROOKLINE STREET BRIDGE

This bridge has been entirely replanked the last year and should require few repairs the coming year. I would recommend some painting which seems necessary at this time.

RIVER STREET BRIDGE

Following out the recommendation in last year's report this bridge was entirely rebuilt. A contract was made with A. A. Hersey and the net expense to this city was $3,201.62.

Owing to the heavy nature of the traffic passing over the bridge it will be necessary to replank the roadway this year.

WESTERN AVENUE BRIDGE

Very little repairs have been necessary on this bridge the past year as it was entirely rebuilt the previous year.

However, the draw must be adjusted, one pier replanked, fender guards repaired and the roadway replanked.

BOYLSTON STREET BRIDGE

This bridge still remains in a more or less dilapidated condition and unless a permanent structure replaces it at an early date will require extensive repairs to keep it in passable condition. As this bridge is subjected to extremely congested traffic at certain times in the year the importance of having the structure absolutely safe is plainly evident.

I wish to take this opportunity to thank my associate commissioner, Mr. Louis K. Rourke, and the Engineering Department of the City of Boston for their aid and kindly co-operation during the past year.

FRANCIS J. SMITH,
Bridge Commissioner.

Number of Times the Draws in the Boston and Cambridge Bridges Have Been Opened and the Number of Vessels Which Have Passed Through for the Year Beginning April 1, 1910, and Ending March 31, 1911.

	Boylston Street		River Street		Western Avenue		Harvard		Prison Point	
	Number of Draw Openings.	Number of Vessels Passing Through.	Number of Draw Openings.	Number of Vessels Passing Through.	Number of Draw Openings.	Number of Vessels Passing Through.	Number of Draw Openings.	Number of Vessels Passing Through.	Number of Draw Openings.	Number of Vessels Passing Through.
April, 1910	15	29	15	29	15	29	53	79	13	27
May, "	9	22	13	29	9	22	39	67	30	61
June, "	12	22	20	37	12	22	45	66	35	75
July, "	14	21	30	50	14	21	50	78	18	29
August, "	3	4	8	12	7	10	24	33	7	17
September, "	13	19	11	16	13	19	39	54	30	52
October, "	12	22	29	52	12	22	49	81	27	49
November, "	4	10	24	77	14	60	55	85	18	29
December, "	....	....	4	7	....	....	54	60	24	47
January, 1911	....	....	....	....	....	....	20	24	16	28
February, "	....	....	....	....	....	....	....	....	21	39
March, "	....	....	....	....	....	....	35	46	35	67
Totals	82	149	154	309	96	205	463	673	724	520

BOSTON AND CAMBRIDGE BRIDGES.

Classification of expenditures by the City of Cambridge from April 1, 1910, to March 31, 1911, which is one-half of the cost of the care and maintenance of these bridges, the other half being paid by the City of Boston.

	Boylston Street	Brookline Street	Cambridge	Harvard	Prison Point	River St.	Western Avenue	General Account	Totals
Drawtenders' Salaries	$847.14	.....	$1,430.97	$2,606.51	$2,584.65	$847.13	$847.12	$950.00	$10,113.52
General Repairs	220.01	$247.25	.....	769.49	180.25	.....	53.36	.....	1,470.56
Lumber	204.79	566.98	.....	331.95	210.55	14.10	77.16	.....	1,405.52
Hardware, Tools, etc	10.00	14.95	22.53	35.37	17.66	57.87	7.20	.....	161.10
Lighting	.....	248.54	1,688.62	891.91	.....	45.00	45.00	.....	2,919.07
Cleaning and Sanding	.....	.....	7.32	375.70	.....	1.50	.....	.....	384.52
Fuel	.....	.....	.....	28.69	11.44	9.72	.....	.....	49.85
Iron Work	.....	.....	13.50	46.54	3.29	.....	.....	.....	63.33
Postage and Stationery	.....	.....	.....	.....	.....	.....	.....	19.75	19.75
Travelling Expenses	.....	.....	.....	.....	.....	.....	.....	35.00	.....
Totals	$1,281.94	$1,077.72	$3,162.94	$5,086.16	$3,107.84	$975.34	$1,025.34	$1,004.75	$16,622.03

REPORT OF THE BOARD OF PARK COMMISSIONERS

To the Honorable, the City Council of the City of Cambridge:—

GENTLEMEN:—The Board of Park Commissioners has the honor to submit herewith its eighteenth annual report covering the municipal year March 31st, 1911, together with the seventeenth annual report of the General Superintendent of Parks, as required by Section 4 of the ordinance establishing a Park Department.

THE ESPLANADE

Since the beginning of the work on the Esplanade in 1893 there has been expended up to March 31st, 1911, of money raised under Park and Esplanade Loans for the Esplanade proper, $1,282,151.99. The amount of money appropriated for the completion of this work during the past few years has been very small; consequently the Esplanade is left in an unsightly condition and the City cannot avail itself of the benefits which will accrue from a completed roadway. There is a very great demand for another driving avenue from Boston to Harvard square; this can be supplied satisfactorily when the Esplanade is finished, as it will give a road free from electric cars and business traffic. In addition, it will assist in developing the great area of land lying between the West Boston Bridge and River street, which should return to the City an immense revenue in taxes. For this reason the roadway between River street and Western avenue should be opened at once. This work may now be accomplished, as the Riverside Press is ready to abandon its buildings. The Commission is of the opinion that the City Government should accord to it at this time every assistance possible to bring about this much desired result. A large amount of money has already been invested in this work and the only wise course now is to expend the relatively small sum to make the entire expenditure profitable.

This work should not be postponed longer because of the negotiations for turning over our riverbanks to the Metropolitan Park Commission and the completion of the Esplanade by that Board. A decision in this matter seems still very remote. If the river front is trans-

SECTION G. LOOKING WEST FROM BOYLSTON STREET

ferred to the Metropolitan Board the City of Cambridge will be amply reimbursed for its expenditures on the properties.

Plans are now under way for very extensive building operations on lands abutting on the Esplanade, and it appears that the City is at last to profit from the business proposition it entered into when it constructed this shore driveway. [We should assist in this project in every way possible, and therefore this Board at this time with rather more than ordinary emphasis calls attention to this fact in view of the demands made and to be made for appropriations for playgrounds.] The Commission desires to assist the playground work in every way possible, but it feels that the work already begun should be finished before the City pledges itself to the expenditure of large sums of money for new work by means of additional loans. The authorities at Harvard University have offered the use of their recreation grounds to Cambridge children during the summer season. These grounds and the completion of our park lands will enable the Playground Commission to make a substantial start in its work without incurring large indebtedness to test theories which may not prove to be well founded.

SHADE TREES

The subject of the City's trees should have serious attention at this time. Much criticism has arisen both in the press and among our people as to the condition of the shade trees, and perhaps justly so. This Commission, in its annual report of 1900, called attention to the fact that a tree inspector had been employed to make an examination of all the trees in the City. The report of this expert showed that at that time there were more than 2,000 trees requiring immediate attention, and the Commission then asked for an enlarged appropriation for the work. No increase, however, has been allowed. Since 1910 the health of our trees has been sorely beset by the vicious inroads of the various insects which have attacked them, namely, the gypsy, brown tail and leopard moths and the elm leaf beetle. Our elm trees, once the pride of the City, seemed doomed. This statement applies to the elm trees on private property as well as the City's trees. We now have on our streets hundreds of dead trees, the removal of which requires a generous appropriation. The reforestation of the streets is necessary. Last year the department put in 350 young trees on the streets and this Board believes that one thousand trees a year at least should be added for some years.

RINDGE FIELD

The Shelter at Rindge Field has been completed, and a heating apparatus and six public baths have been installed. It is the intention of the Board to open this Shelter to the public for all-year-round bathing, as has been successfully done at Cambridge Field. This step has been made possible by the action of last year's City Government, which authorized the work and made the necessary appropriation. The field itself is in good condition.

OILING ROADWAY

No appropriation was given to this department last year for the oiling of our streets. As the Superintendent's report will show, the roads between the West Boston and Harvard bridges and between Magazine street and River street have been built up with a substantial cinder foundation, and the intention is to complete these roads to grade. The Board earnestly asks that an appropriation be made for a tarvia dressing, in order to prevent the disintegration which must follow if this treatment is not given them. The use of this preparation not only adds greatly to the comfort of the people who use the roads, but also makes an immense saving in maintenance,—especially where automobile traffic is heavy.

The department has at last been fortunate in securing during the past year a large amount of the filling material taken from the subway. Many unsightly holes have been filled between Magazine and River streets and when they have been leveled and planted with hay or oats the appearance of this section of the City will be greatly improved.

Mr. George Howland Cox ended last year his service on the Park Commission. The Board deems it fitting at this time to express publicly its appreciation of the work of Mr. Cox in connection with the Cambridge parks. He served on the Commission continuously since its organization in 1893, and was for many years its president. No man ever brought to the City a greater degree of efficiency. His untiring energy was of inestimable value to the City in the beginning and development of this work. His name will always be more intimately connected with the park development than that of any other citizen. This honorable distinction must be his compensation for the time spent and the zealous and competent supervision exercised over the department and its affairs during his term of office.

FINANCIAL STATEMENT

PARK LOANS

Amount of unused balance of 1909 appropriation:		
Reappropriated April 6, 1910	$592 23	
Reappropriated October 25, 1910	17 97	
		$610 20
Amount appropriated November 23, 1910		15,000 00
Amount appropriated July 8, 1910, Rindge Field		2,000 00
		$17,610 20

PARK MAINTENANCE

Brown Tail Moth and Elm Leaf Beetle Extermination:		
Amount appropriated May 24, 1910	$6,000 00	
Amount appropriated February 15, 1911	1,000 00	
		$7,000 00
Sections A, B, D, F, G and H:		
Amount appropriated May 24, 1910	$7,000 00	
Amount transferred March 18, 1911, to Maintenance, Cambridge Field and Shelter	19 65	
Amount transferred March 18, 1911, to Maintenance, Commons, Squares and Public Grounds	54 00	
		$6,926 35
Cambridge Field and Shelter:		
Amount appropriated May 24, 1910	$6,000 00	
Amount transferred March 18, 1911, from Maintenance, Sections A, B, D, F, G and H	19 65	
		$6,019 65
Commons, Squares and Public Grounds:		
Amount appropriated May 24, 1910	$4,100 00	
Amount transferred March 18, 1911, from Maintenance, Sections A, B, D, F, G and H	54 00	
		$4,154 00
Shade Trees:		
Amount appropriated May 24, 1910	$4,000 00	
Amount transferred January 5, 1911, from Maintenance, General Account	100 00	
		$4,100 00
Bath House:		
Amount appropriated May 24, 1910		$1,800 00
General Account:		
Amount appropriated May 24, 1910	$1,500 00	
Amount transferred July 5 and September 23, 1910, to Street Department	432 00	
Amount transferred January 5, 1911, to Maintenance, Shade Trees	100 00	
		$968 00
Removal of Dead Trees:		
Amount appropriated May 24, 1910		$3,000 00
Salaries:		
Amount appropriated May 24, 1910		$2,300 00
Rindge Field and Shelter:		
Amount appropriated May 24, 1910		$1,800 00

Longfellow Park:	
Amount appropriated May 24, 1910	$250 00
Sand Gardens:	
Amount appropriated May 24, 1910	$200 00
Mill Pond:	
Amount appropriated May 24, 1910	$150 00

During the year bills payable from Park Loans have been approved by the Board and certified to the Auditor to the total amount of $3,854.88, as follows:—

PARK LANDS AND CONSTRUCTION

River Parkway, Section A:		
Construction Account	$313 31	
River Parkway, Section B:		
Construction Account	40 25	
River Parkway, Section C:		
Construction Account	12 00	
River Parkway, Section D:		
Construction Account	1,394 09	
River Parkway, Section G:		
Construction Account	24 00	
Rindge Field (separate appropriation):		
Construction Account	585 50	
Shower Baths, etc., Rindge Field (separate appropriation):		
Construction Account	1,485 73	
Amount expended		$3,854 88
Amount unexpended		$13,755 32

During the year bills payable from Park Maintenance have been approved by the Board and certified to the Auditor as follows:—

	Amount Expended	Balance Unexpended
Brown Tail Moth and Elm Leaf Beetle Extermination	$6,998 53	$1 47
Sections A, B, D, F, G and H	6,926 35	.....
Cambridge Field and Shelter	6,019 39	26
Commons, Squares and Public Grounds	4,153 93	07
Shade Trees	4,099 97	03
Removal Dead Trees	2,998 26	1 74
Salaries	2,300 00	.....
Rindge Field and Shelter	1,799 97	03
Bath House	1,799 53	47
General Account	966 91	1 09
Longfellow Park	250 00	.....
Sand Gardens	199 56	44
Mill Pond	150 00	.....

A detailed classification of the expenditure will be found in the report of the General Superintendent.

Since the beginning of the work in 1893 there has been expended to date of money raised under Park and Esplanade Loans the sum of $1,587,431.59.

The division is as follows:—

River Parkway, Section A:		
Land Account	$9,416 83	
Construction Account	166,856 88	
		$176,273 71
River Parkway, Section B:		
Construction Account	$108,252 04	108,252 04
River Parkway, Section C:		
Construction Account	$114,688 06	
Land Account	31,701 08	
		146,389 14
River Parkway, Section D:		
Construction Account	$120,539 61	
Land Account	95,047 25	
		215,586 86
River Parkway, Section E:		
Construction Account	$1,259 70	
Land Account	60,110 00	
		61,369 70
River Parkway, Section F:		
Construction Account	$69,047 37	
Land Account	67,491 62	
		136,538 99
River Parkway, Section G:		
Construction Account	$120,693 41	
Land Account	86,824 82	
		207,518 23
River Parkway, Section H:		
Construction Account	$13,135 30	13,135 30
Cambridge Field:		
Construction Account	$127,315 28	
Land Account	78,884 85	
		206,200 13
East Cambridge Embankment:		
Construction Account	$102,987 93	
Land Account	45,231 40	
		148,129 33
General Account:		
Construction Account	$55,352 45	55,352 45
Rindge Field:		
Construction Account	$19,307 86	
Land Account	31,461 85	
		50,769 71
Office Expenses:		
Construction Account	$15,915 29	15,915 29
Broadway:		
Construction Account	11,635 27	11,635 27

Rebuilding Sea-Walls:		
Construction Account	$10,887 89	$10,887 89
Nursery:		
Construction Account	9,240 49	9,240 49
Improvements at Rindge Field:		
Construction Account	7,788 98	7,788 98
Hastings Square:		
Construction Account	2,683 07	2,683 07
Baths and Lockers:		
Construction Account	2,500 00	2,500 00
Winthrop Square:		
Construction Account	1,866 26	1,866 26
Shower Baths and Heating Apparatus, Rindge Field:		
Construction Account	1,475 73	1,475 73
Mill Pond:		
Construction Account	999 77	999.77
Fort Washington:		
Construction Account	929 79	929 79
Washington Elm:		
Construction Account	466 98	466 98
Porter Square:		
Construction Account	20 87	20 87
		$1,591,925 98
Less Park revenue for 1894 and 1896 merged into Land and Construction Accounts		4,494 39
		$1,587,431 59

Of the whole amount of Park Loans expended to April 1st, 1911, 32 per cent. has been for land and 68 per cent. for construction, as follows:—

Land Account (less revenues)	$501,675 31	
Construction Account	1,085,756 28	
		$1,587,431 59

Respectfully submitted,

WILLIAM M. WADDEN,
DAVID J. NELLIGAN,
PETER MULLIN,
Park Commissioners.

REPORT OF THE GENERAL SUPERINTENDENT OF PARKS

CAMBRIDGE, April 1st, 1911

To the Board of Park Commissioners of the City of Cambridge:—

GENTLEMEN:—I have the honor to present herewith my fifth annual report as General Superintendent of Parks, covering the financial year of 1911.

SECTION A

(Area 9.07 acres)

Section A extends from the south line of Main street as widened for the approach to the new Cambridge Bridge to the west line of the third street east of Massachusetts avenue.

Six Welsbach lights were maintained during the year.

The thirty-feet roadway between the Cambridge Bridge and the Exposition building has been brought to sub-grade with cinders, leaving it in condition for macadamizing in the spring.

About 150 loads of filling were received from the Boston Transit Commission and placed back of the lower end of the wall, without any expense to the department. This part of the section is now at sub-grade.

On November 25th $2,000 was appropriated to partly finish the lower end of this section and make it presentable, as it leads to one of the main entrances to the City. On account of the lateness of the appropriation the work was postponed until spring.

SECTION B

(Area 19.72 acres)

Section B extends from the west line of the third street east of Massachusetts avenue to the west line of the fourth street west of the avenue, but does not include Massachusetts avenue.

Twenty-six Welsbach lights were maintained during the year.

The usual work of maintenance was carried on here, taking care of the grass, walks and shrubs on both roadways.

The iron fences along the wall should be repaired and painted the coming year as they are in poor condition from rust.

The appropriation made for repairing of the thirty-feet roadway came too late in the season for the work to be done.

I would renew my recommendation of last year that the deck of the public landing at Riverbank Court be replanked and buoyed, as it is becoming waterlogged.

SECTION C

(Area 13.39 acres)

Section C extends from the west line of the fourth street west of Massachusetts avenue to the east line of Brookline street.

On account of the bad condition of the thirty-feet roadway at the approach to the bridge over the railroad, and on advice of the City Solicitor, the roadway over the bridge was closed to public travel June 25th.

At the writing of the report of last year it was then expected that enough material would be obtained from the subway to fill this large area so that the roadway would be completed and trees planted. In February about 5,000 loads were received from the subway and 200 loads from the Boston Transit Commission. More would have been received from the latter concern but on account of the long haul the teams could make but four trips daily.

About 10,000 cubic yards will be required to complete the necessary filling.

SECTION D

(Area 38.31 acres)

Section D extends from the west line of Brookline street to the south line of River street.

Twenty-nine Welsbach lights have been maintained, eighteen on the driveway and eleven on the Island, together with three arc lights on the beach during the bathing season.

The section has been given the required care the past season, from two men constantly employed during the summer season cutting grass, cleaning shrubbery beds and taking care of the roadway between Magazine and Brookline streets, together with cleaning the bath houses during the bathing season.

The proposed sidewalk along the river between Pleasant and River streets was widened to the entire width with filling received from the subway.

The large area of marsh land containing two and two-thirds acres between the park roadway and the river and from Captain's Island to Pleasant street has been brought to sub-grade with material received from the subway.

About 21,000 loads were placed and leveled off to a rough grade without any expense to the City, thus leaving the unsightly piece of land very much improved, and can be put in condition for either park use or playground purposes with very little cost.

About 5,355 loads of filling were received from the subway and placed on the unfinished part of the ball field. When this is completed it will be one of the best and largest ball fields in the City, as there will be ample room for two games at the same time. The department has been very fortunate the past year in receiving so large an amount of filling on the three sections. It is a fair estimate to say that 37,355 loads were received from the subway and 350 loads from the Boston Transit Commission, making a total of 37,750 loads without a cost of one dollar to the department.

One thousand, five hundred and six and six-tenths cubic yards were placed on the forty-feet roadway between Magazine and River streets, leaving the roadway ready for macadamizing.

The bath houses were open from June 20th to September 6th, with two lifeguards, two men in the men's bath house, one each in the locker houses, one woman in the women's bath house and one selling tickets.

The laundry was done by the Quaker Laundry Company at $3.75 per hundred suits, 75 cents per hundred stockings, 65 cents per hundred towels, being a reduction of the former contract of $5 per hundred suits, $2 per hundred stockings and $1 per hundred towels.

The total receipts for the season were $895.35, or about $50 less than the year before.

As I said in my report of last year, this shortage is without doubt due to the damming of the river. Although there are as many of the younger children who frequent and enjoy the bathing as much as in former years it has been proven that a large per cent. of the adults prefer bathing in the salt water.

SECTION E

(Area 1.77 acres)

Section E extends from the north line of River street to the south line of Western avenue.

No work has been done here the past year, and as I said in my report of last year, in view of the demand for a continuous driveway on the shore of the river it seems to me the matter of opening up this section should receive serious consideration. With the exception of the building and land occupied by the boat house of the Riverside Boat Club there would be no difficulty in completing the section if sufficient appropriation is made, as the Houghton, Mifflin Company and Cambridge Electric Light Company are ready to vacate the park buildings at short notice.

SECTION F

(Area 13.89 acres)

Section F extends from the north line of Western avenue to the east line of Boylston street.

Seventeen Welsbach lights have been maintained.

Two men have been doing the usual work of maintenance.

The roadway is worn considerably on account of the heavy automobile traffic and should be repaired the coming year.

SECTION G

(Area 16.07 acres)

Section G extends from the west line of Boylston street to the east line of the land of the Stillman Infirmary.

Twenty-six Welsbach lights have been maintained.

Four men were employed during the season.

The shrubbery beds between Bath street and the Stillman Infirmary were thoroughly trimmed.

The roadway is in the same condition and should receive similar treatment.

Sixty-one settees were repaired and painted.

SECTION H

(Area 1.44 acres)

Section H extends from the east line of the land of the Stillman Infirmary to the Metropolitan taking at Gerry's Landing.

The section received the care of the men employed at Section G.

LONGFELLOW PARK

(Area 2.14 acres)

This park was deeded by the Memorial Association to the City April, 1908, and accepted May 13th, 1909.

The usual work of cutting grass, cleaning walks and caring for the shrubbery beds was carried on.

EAST CAMBRIDGE EMBANKMENT

(Area 8.35 acres)

On account of no appropriation being made no work was done.

It is to be hoped that some consideration will be given the improvement of this playground the coming year as there is a large area which might be made of great use for the children of that part of the City.

CAMBRIDGE COMMON

The Common received the usual attention for the season, two men being constantly employed.

Ten settees were repaired and painted.

The plans submitted by the Boston Elevated Railroad Company and accepted by your Board for the reconstruction of the small common where the subway enters are being carried out as fast as conditions will permit and should be completed by June 1st at the latest.

CITY HALL AND WINTHROP SQUARE

Both these grounds were taken care of, City Hall being weeded and grass cut and the shrubbery beds and grass at Winthrop square receiving attention.

PUBLIC LIBRARY GROUNDS

The grounds around the Public Library, Manual Training, English High and Latin schools received attention of three men this past season and show very good results.

BROADWAY COMMON

The usual care has been given the Common this past year, but on account of the large number of people frequenting the Common

it was found very difficult for the men to keep the grass and shrubbery beds looking as well as they should under the care given.

FORT WASHINGTON

The usual care has been given the grass and shrubbery beds and considering the number of children who find it a breathing space during the summer days shows very good condition.

RINDGE FIELD AND SHELTER

(Area 11.28 acres)

One man was employed the entire year and one man extra during the spring and summer months taking care of the grass, shrubs and ball field.

A matron was employed at the Shelter from June 1st to November 1st, taking care of the smaller children.

About 2,700 cubic yards of filling were received on the field south of Pemberton street, without expense. This brings the area so filled to sub-grade, a light covering of loam being necessary to place the field in condition as a playground for the smaller children.

The gymnasium, swings and sand courts were well patronized by the children.

Skating was enjoyed by a large number during the winter.

The baseball and football games drew large numbers during the season, especially during Saturday afternoons and holidays.

In the basement of the Shelter six shower baths were installed, the compartments for the showers being built of slate partitions and granolithic floors. Nineteen wooden lockers have been built and all is ready to open the baths to the public within a week or two.

A complete low pressure heating apparatus including ten radiators has been installed, and a steam hot water heater with a capacity of 325 gallons to furnish water for the baths.

A change was made in the entrance to the basement to accommodate those using the baths and on this account the old bulkhead was removed and in its place a granolithic wall and steps were built, thus making an entrance five feet wide running parallel with the building.

The installation of the heating apparatus and shower baths completes the Shelter equipment, and it is hoped that the Shelter may be a great benefit to the citizens of the northern part of the City.

One man has been employed at the Nursery caring for the trees and shrubs.

The following is an inventory of stock on hand at the Nursery :—

TREES

Acer platanoides	9
Acer saccharum	11
Platanus orientalis	62
Populus dilata	16
Quercus rubra	21
Salix pentandra	7
Tilia Americana	12
Ulmus Americana	18

SHRUBS

Amorpha fruticosa	7
Andromeda japonica	8
Aralia pentaphylla	76
Azalea amoena	10
Baccharis halimifolia	6
Berberis thunbergii	1,000
Berberis vulgaris	9
Buxus sempervirens	20
Calycanthus floridus	21
Caragana arborescens	43
Ceanothus Americanus	2
Celastrus scandens	38
Clethra alnifolia	137
Cornus alba	7
" florida	33
" paniculata	19
" sericea	140
" sanguinea	53
Cratægus oxycantha	52
Deutzia crenata	10
Deutzia gracilis	10
Eleagnus longpipes	14
Euonymus radicans	150
Exochorda grandiflora	31
Forsythia fortuneii	100
Forsythia viridissima	70
Hydrangea asplenifolia	40
Hydrangea paniculata	7
Ilex glabra	12
" vertirillata	8
Kalmia latifolia	30
Ligustrum ibota	25
" ovalifolium	69
" vulgaris	22
Lonicera brachypoda	50
" halliana	40
" tatarica alba	25
" tatarica	90
Lycium barbarum	7
Mahonia aquifolia	18
Philadelphus coronarius	20
Periploca græca	20
Rhamnus catharticus	20
Rhodotypos kerriodes	5
Rhus aromatica	50
" canadensis	30
" typhina	15

Ribes aurem	2
Robinia hispida	5
Rosa multiflora	19
" nitida	1
" robina	6
" rugosa	200
" setigera	6
" wichuraiana	20
Spiræa Anthony waterer	33
" aurum	6
" billardii	9
" bumalda	35
" pruniflora	5
" salicofolia	17
" Van Houteii	31
" thunbergii	100
Staphylea trifolia	40
Stephanandra flexuosa	16
Symphoricarpos vulgaris	232
Syringa vulgaris	26
Tamarix africana	6
Viburnum cassinoides	14
" dentatum	42
" lantana	40
" lentago	2
" opulis	18
" opulis nana	4
" tomentosa	11
Vinca minor	200
Xanthrorrhiza apilfolia	100

The following is an inventory of supplies on hand at the tool house:—

900 feet rope (poor condition)
800 feet rope (good condition)
900 feet wire netting
268 feet spraying hose (poor condition)
100 fence poles
40 poles for brushes
40 lawn mowers (good condition)
40 broken shear poles
36 shears for poles
36 picks (poor condition)
26 long-handled shovels
23 ordinance signs
35 gallons creosote
20 sprinklers
16 garden hoes
12 wooden snow shovels
12 grub axes (poor condition)
12 scuffle hoes
12 half ladders
13 bamboo poles
14 iron rakes
10 weed diggers
11 iron snow shovels
10 wooden rakes (poor condition)
9 signs
8 pick handles

8 spaying rods
7 extension ladders
6 wheelbarrows
9 spading forks
8 pick handles
7 sickles
6 edging knives
5 gallons lubricating oil
5 measuring poles
4 sets falls
4 manure forks
5 rolls hose (poor condition)
4 bags old burlap
4 double and one single cross-cut saws
3 hand saws
3 garden lines
3 paving rammers
5 pole hooks
3 light rammers
3 crow bars
3 teams
2 grub axes
2 draft horses
2 pole saws
2 scythes
2½ bundles burlap
2 sections rubber hose
2 pole saws
2 pairs pruning shears
2 Olds gasolene spraying machines
1 claw hammer
1 sledge hammer
2 hand spraying machines
1½ barrels arsenate of lead

SHADE TREES

This is one of the greatest problems which your Board has been compelled to meet for the past few years. Notwithstanding the department has done everything possible to preserve our shade trees, with the limited means at its disposal, the elm trees continue to die.

With the improved macadamized streets, the brick sidewalks, the moisture has been prevented from reaching the roots of the trees. The electric light wires also withered and killed the foliage above, while the escaping gas suffocated the roots beneath. Besides these difficulties we have had the gypsy, brown tail and leopard moths to contend with, and the greatest pest of all was the elm leaf beetle, the chief cause of losing so many elm trees.

There are in the City at the present time about 450 dead trees and 900 trees which are one-half or three-fourths dead, and it seems as though the most dangerous of these should be taken out the coming year.

A careful inspection of all the trees shows 11,713 in good condition, this report seeming very favorable when we consider the number of trees which have died in the Harvard College yard, with all money and scientific methods at hand. It might be well to consider that all elm trees have shared the same fate, noticeably on the estates of William E. Doyle, the Holy Ghost Hospital and of the late Charles Linehan, all these being on Cambridge street; and of L. M. Hannum on Harvard street. These trees received the best of care from skilled men.

The department has planted 350 young trees the past season to replace those that have died; this number per year is entirely too small in comparison to the large number which died each season, and I believe that 1,000 trees per year should be planted for the next three years in hopes to get ahead of the damage.

I am afraid Cambridge will be in the class of a barren city as to the trees which for many years have been admired by those visiting.

A contract was made this past year with Frederick B. Shattuck for the removal of fifty dead trees on the following named streets:— Austin, Broadway, Columbia, Essex, Harvard, Inman, Norfolk and Worcester, and 139 dead trees were removed by the men of the department. Seventy-six stumps were removed and 315 trees trimmed on complaints of the abuttors. All the wire guards were repaired twice during the year.

CAMBRIDGE FIELD AND SHELTER

(Area 12.64 acres)

On this field the usual work of maintenance was carried on.

Eleven trees were planted to replace those that had died.

The shrubbery beds surrounding the field were thoroughly overhauled and 1,600 shrubs of various varieties planted to replace those that were trampled upon by people using the ball fields.

During the summer months the ball field was well patronized to the extent of several games taking place at the same time. On Saturday afternoons and holidays matched games of baseball were played by semi-professional clubs, the attendance on these days numbering nearly 3,000.

The Playground Commission was given the use of the field and Shelter during the school vacation and four instructors were placed there to teach the children games five days each week.

A jumping box was built and eight swings were erected at the expense of the Playground Commission.

The field was flooded for skating and 41 days of the winter months thousands of people enjoyed the ice.

The running track, baths and locker rooms were well patronized by athletes in training.

The shower baths have become a necessary and popular part of the system, as will be seen by the following table:—

	Boys	Girls	Women	Men
April, 1910	1,247	73	751	4,246
May	2,058	312	922	4,968
June	3,127	525	1,044	5,372
July	6,557	679	1,462	6,252
August	5,760	529	1,119	4,758
September	2,922	350	1,138	4,214
October	900	....	802	3,778
November	149	....	646	3,039
December	87	....	684	2,145
January, 1911	122	....	550	2,552
February	158	....	488	2,428
March	342	....	518	2,957
Totals	23,429	2,499	10,124	46,709

Grand total—82,761

The following is the account of stock on hand at the field:—

600 feet rope
295 towels
100 feet garden hose
50 pounds soap
65 pounds guard wire
20 wooden stakes
30 iron stakes
8 ash barrels
6 short-handled shovels
4 picks
4 spades
4 lanterns
3 wooden scoops
3 scufflers
3 corn brooms
3 reed push brooms
3 iron rakes
3 forks
3 lawn mowers
2 iron wheelbarrows
2 wooden wheelbarrows
2 crow bars
2 step ladders
2 long-handled cutting shears
2 grubbers
2 crow bars
1 axe
1 monkey wrench
1 sledge hammer
1 floor brush
1 trimming shears
1 sod edger
1 platform truck
1 ice scraper
1 feather duster
1 cross-cut saw
1 hand saw
1 large reel
1 set bases
1 box staples
½ keg nails

LEOPARD MOTH

This insect continues to do considerable harm to our shade trees in all parts of the City.

During the past year nothing has been done towards the suppres-

sion of this moth for the reason that as yet no definite treatment has been found. Some citizens have experimented by cutting off all the dead tips of the limbs and burning the brush immediately; others have tried to kill the moth by injecting carbon bi-sulphite into the hole, and seal it with wax; others have tried fishing for the moth with a wire hook. The latter remedy would be impossible for this department to adopt as in my opinion it would be similar to looking for a needle in a bundle of hay.

I would suggest that part of the appropriation of shade trees be used for the employment of three or four men to go over the sections that are badly infested and remove all the dead and broken limbs that the moth may be found working in and burn these cuttings immediately. This will help to keep the moths in check until some better method presents itself.

MILL POND

One man was employed here half-time during the summer months cleaning the ball field, leveling and rolling the diamond before each game. The rest of the time was spent by this employee watering the grounds at City Hall.

ELM LEAF BEETLE EXTERMINATION

A new Church high-pressure spraying machine was purchased in the spring, making two good machines on hand for the work.

Work was begun May 17th and continued until June 19th.

Every elm tree on the streets and parks was thoroughly sprayed with a solution of arsenate of lead and where the infestation was bad a second spraying was given. Very satisfactory results have been obtained, as is shown by the little trouble from the beetle last season.

On request of property owners trees on private property were sprayed and a charge of 50 cents per small tree and $1 per large tree for work done. This brought in a revenue of $75.

WASHINGTON ELM

This oid and historic tree received the usual care and attention the past year, dead wood removed and two coats of tar applied to the bark. It was watered twice a week during the dry weather and the hydrant and underground system were tested well. Twice it was sprayed with arsenate of lead.

GRANOLITHIC WALK, CAMBRIDGE FIELD, BERKSHIRE STREET PATH

THE YEAR'S EXPENDITURES

The expenses of the department for the financial year of 1910 are shown in the following summary of the departmental accounts:—

PARK LOANS

(Lands and Construction)

Amount of unused balance of 1909 appropriation, reappropriated October 25, 1910			$17 97
Amount appropriated November 23, 1910			15,000 00
			$15,017 97
EXPENDED			
River Parkway, Section A:			
Filling	$239 28		
Pay rolls	30 00		
Services, landscape architects	29 03		
Stakes for engineers	16 00		
		$313 31	
River Parkway, Section B:			
Pay rolls	$36 00		
Advertising	4 25		
		40 25	
River Parkway, Section C:			
Pay rolls	$12 00	12 00	
River Parkway, Section D:			
Pay rolls	674 50		
Ashes	602 65		
Filling	109 74		
Hardware, tools, etc.	7 20		
		1,394 09	
River Parkway, Section G:			
Teaming	$24 00	24 00	
Total			1,783 65
Balance unexpended			$13,234 32

INSTALLING SHOWER BATHS AND HEATING APPARATUS—RINDGE FIELD

Amount appropriated July 8, 1910		$2,000 00
EXPENDED		
Payment on heating contract	$420 75	
Payment on installation of shower baths (contract)	565 81	
Building lockers, settees, etc.	185 87	
Paint and supplies	71 14	
Changing steps outside, masonry	140 00	
Changing electrical system	67 66	
Labor	25 50	
Advertising	9 00	
Total		1,485 73
Balance unexpended		$514 27

Rindge Field:

Amount of unused balance of 1909 appropriation, reappropriated April 6, 1910		$592 23
EXPENDED		
Pay rolls	$585 50	
Total		585 50
Balance unexpended		$6 73

PARK MAINTENANCE

Brown Tail Moth and Elm Leaf Beetle Extermination:

Amount appropriated May 24, 1910		$6,000 00
Amount appropriated February 25, 1911		1,000 00
		$7,000 00
EXPENDED		
Pay rolls	$5,205 74	
Church spraying machine	900 00	
Arsenate of lead	252 00	
Teaming	218 25	
Clerical assistance	109 59	
Postage stamps and stamped envelopes	75 39	
Index cards and printing	53 20	
Repairs and supplies, Church machine	48 10	
Ladder repairs	27 35	
Creosote	27 18	
Gasolene	20 60	
Hardware, tools, etc.	20 33	
Hose for spraying machine	18 10	
Printing notices to property owners	15 00	
Horse shoeing	7 50	
Expressage	20	
Total		6,998 53
Balance unexpended		$1 47

Sections A, B, D, F, G and H:

Amount appropriated May 24, 1910	$7,000 00
Amount transferred March 18, 1911, to Maintenance, Cambridge Field and Shelter	19 65
	$6,980 35
Amount transferred March 18, 1911, to Maintenance, Commons, Squares and Public Grounds	54 00
	$6,926 35

	EXPENDED		
Section A:			
Lighting	$177 60	$177 60	
Section B:			
Pay rolls	1,339 25		
Lighting	769 56		
Hardware, tools, etc.	3 62		
		2,112 43	
Section C:			
Lumber, fence at railroad	$21 51		
Trees and freight	31 00		
Painting signs	5 25		
		57 76	
Section D:			
Lighting	$720 25		
Pay rolls	542 34		
Ashes	10 03		
Teaming	9 00		
Water "off and on"	1 00		
		1,282 62	
Section F:			
Pay rolls	$683 50		
Lighting	503 16		
Hardware, tools, etc.	3 75		
		1,190 41	
Sections G and H:			
Pay rolls	$1,255 50		
Lighting	769 68		
Trees	62 50		
Stakes	10 00		
Hardware, tools, etc.	7 85		
		2,105 53	
Total			6,926 35

Cambridge Field and Shelter:

Amount appropriated May 24, 1910	$6,000 00
Amount transferred March 18, 1911, from Maintenance, Sections A, B, D, F, G and H	19 65
	$6,019 65

(The Field)

	EXPENDED		
Pay rolls	$1,935 88		
Lighting	577 50		
Trees and freight	314 83		
Teaming	93 00		
Shrubs and freight	69 82		
Hardware, tools, etc.	30 13		
Stakes	30 00		
Painting flag-pole	24 00		
Repairing board walks	19 60		
Garden hose	11 00		
Lumber	2 12		
		$3,107 88	

Amount carried forward.....

Amount brought forward .....

(The Shelter)

EXPENDED

Pay rolls	$2,340 00		
Laundering towels	213 87		
Coal	128 75		
Lighting	107 40		
Soap	42 80		
Towels	27 00		
Supplies	19 87		
Glass and setting	13 20		
Toilet paper and expressage	13 00		
Printing signs	4 00		
Repairs	1 62		
		2,911 51	
Total			6,019 39
Balance unexpended			$ 26

Commons, Squares and Public Grounds:

Amount appropriated May 24, 1910	$4,100 00
Amount transferred March 18, 1911, from Maintenance, Sections A, B, D, F, G and H	54 00
	$4,154 00

EXPENDED

Pay rolls	$3,428 79	
Lighting	320 04	
Repairing board walks	117 09	
Teaming	87 00	
Hardware, tools, etc.	36 97	
Painting flag-pole	36 00	
Housing top-masts, fixing halliards, etc.	32 00	
Repairing fence, Dana Square	25 85	
Stakes	20 00	
Engine oil	13 13	
Goal posts	10 16	
Trees	10 00	
Slats for settees	8 70	
Stationery	3 50	
Wire for fence	2 70	
Expressage	2 00	
Total		4,153 93
Balance unexpended		$ 07

Shade Trees:

Amount appropriated May 24, 1910	$4,000 00
Amount transferred January 5, 1911, from Maintenance, General Account	100 00
	$4,100 00

EXPENDED

Pay rolls	$3,405 28	
Trees	341 25	
Teaming	186 00	
Loam	41 10	
Hardware, tools, etc.	37 50	
Damages to property by falling trees	37 02	
Sharpening saws	16 75	
Medical attendance for injured employee	11 00	
Skids and repairs	15 89	
Stationery	3 75	
Irrigation system installed, Massachusetts Avenue, tree	2 93	
Hose for tying trees	1 50	
Total		4,099 97
Balance unexpended		$ 03

Removal of Dead Trees:

Amount appropriated May 24, 1910	$3,000 00

EXPENDED

Pay rolls	$1,792 75	
Contract, removal fifty trees	1,030 00	
Teaming	147 00	
Sharpening saws	13 75	
Advertising	8 00	
Hardware, tools, etc.	4 46	
Harness repairs	2 30	
Total		2,998 26
Balance unexpended		$1 74

Salaries:

Amount appropriated May 24, 1910	$2,300 00

EXPENDED

Salary of General Superintendent	$1,500 00	
Salary of Clerk and Bookkeeper	800 00	
Total		2,300 00

Rindge Field and Shelter:

Amount appropriated May 24, 1910		$1,800 00
EXPENDED		
Pay rolls	$1,374 13	
Lighting (Cambridge Electric Light Company)	180 00	
Lighting (Welsbach Street Lighting Company of America)	59 16	
Towels	57 20	
Coal	44 40	
Miscellaneous supplies	25 81	
Teaming	12 00	
Toilet paper and expressage	13 00	
Plumbing	12 00	
Slats for settees	9 35	
Soap	8 00	
Lumber	3 92	
Water "off and on"	1 00	
Total		1,799 97
Balance unexpended		$ 03

Bath House:

Amount appropriated May 24, 1910		$1,800 00
EXPENDED		
Pay rolls	$1,230 66	
Laundering suits, towels, etc.	163 15	
Lighting beach	143 12	
Bathing suits..	98 23	
Towels	52 80	
Disinfectant	26 75	
Stationery	23 98	
Hardware, tools, etc.	17 29	
Tags for suits	16 70	
Repairs	7 71	
Supplies (tapes, etc.)	5 95	
Analysis of water	5 00	
Plumbing	6 41	
Medicinal supplies	1 78	
Total		1,799 53
Balance unexpended		$ 47

General Account:

Amount appropriated May 24, 1910	$1,500 00
Amount transferred July 5 and September 23, 1910, to Street Department	432 00
	$1,068 00
Amount transferred January 5, 1911, to Maintenance, Shade Trees	100 00
	$968 00

EXPENDED

Board of Superintendent's horse	$300 00	
Telephone service	162 84	
Entertaining Committee on Parks	88 55	
Stationery and printing	61 65	
Horse shoeing	76 92	
Printing and binding annual report, 1910	60 22	
Stationery (city messenger account)	27 47	
Pay roll and requisition books	20 25	
Carriage repairs	21 55	
Binding annual reports for commissioners	27 55	
Harness repairs and supplies	29 90	
Hardware, tools, etc.	16 73	
Stamps	14 09	
Kerosene oil	13 28	
Miscellaneous supplies and repairs	10 75	
Advertising	8 75	
Bicycle repairs	6 75	
Typewriter keys	5 00	
Directory, 1911	4 00	
Sharpening saws	3 92	
Subscription, "Municipal Journal"	3 00	
Labor	1 50	
Expenses, Superintendent	1 30	
Photo supplies	94	
Total		966 91
Balance unexpended		$1 09

Longfellow Park:

Amount appropriated May 24, 1910	$250 00

EXPENDED

Pay rolls	$250 00	
Total		250 00

Sand Gardens:

Amount appropriated May 24, 1910		$200 00
EXPENDED		
Sand for boxes	$139 11	
Pay rolls	34 00	
Lumber	19 87	
Teaming	6 00	
Hardware, tools, etc.	58	
Total		199 56
Balance unexpended		$ 44

Mill Pond:

Amount appropriated May 24, 1910		$150 00
EXPENDED		
Pay roll	$138 00	
Teaming	12 00	
Total		150 00

Respectfully submitted,

JOHN F. DONNELLY,

General Superintendent of Parks.

REPORT OF THE CITY ENGINEER

OFFICE OF THE CITY ENGINEER,
CAMBRIDGE, April 1, 1911.

To the Honorable, the City Council:—

The City Engineer hereby submits his annual report, being the forty-fourth of the department, showing the operation and expenditures of the Engineering and Sewer Departments for the year ending April 1, 1911.

A brief summary of the work of the Engineering Department for the year is as follows:—

FOR HIGHWAY DEPARTMENT

Number of surveys made	26
Number of street lines given	45
Number of grades given	131
Number of streets on which paving, curb, etc., was measured	126
Number of assessments prepared	284
Number of plans and profiles prepared	12

FOR SEWER DEPARTMENT

Number of surveys made	18
Number of lines given	256
Number of grades given	312
Number of sewers measured	21
Number of assessments prepared	31
Number of sewers assessed	5
Number of plans or profiles prepared	21

FOR WATER WORKS

Number of surveys	2
Number of lines given	12
Number of plans and profiles made	4

FOR LAW DEPARTMENT

Number of surveys	70
Number of plans (not filed)	10
Number of photographs	64

FOR PRIVATE PARTIES

Number of street lines given	91
Number of street grades given	18

MISCELLANEOUS WORK

Number of surveys	
Number of houses measured	300
Number of plans or profiles prepared, tracings, etc.	277
Number of photographs taken	37

FOR PARK DEPARTMENT

Number of lines given	5
Number of grades given	9

There are now on file in the office 11,186 plans.

FINANCIAL

ENGINEERING DEPARTMENT

Salaries

Appropriation	$9,000 00
Expended	8,404 44
Balance	$595 56

Other Expenses

Appropriation	$700 00
Expended	667 55
Balance	$32 45

In addition to the above amount charged to salaries of assistants there have been expended and charged to departments as follows:—

To Assessors' plans	$199 09
To Sewer Department	1,443 30
To Engineering Department:	
Salary of City Engineer	3,000 00
Salaries Assistants	5,404 44
	$10,046 83

Classification of salaries of Assistants:

Accounts	$426 13	
Assessors' Plans—Surveys, measurements and work on block plans for Assessors' Department	365 27	
Accidents—Surveys, plans and court attendance for Law Department	129 93	
Bridges—Surveys, plans, examinations and estimates	256 53	
Cemetery—Surveys and plans, setting out lots, etc., at Cambridge Cemetery	67 25	
General Surveys and Levels—Surveys and work on section and city plans and bench leveling	495 62	
Highways—Surveys, levels, plans, estimates, measurements and assessments for Highway Department, also lines and grades for private parties	1,365 25	
Location plans for electric conduits, gas, water pipes, etc.	317 55	
Miscellaneous—Unclassified work for committees and departments, vacations and sickness	781 92	
Parks—Surveys, lines, grades, plans and estimates for Park Department	213 65	
Sewers—Lines, grades, plans, estimates, accounts, measurements and assessments, for Sewer Department	2,366 28	
Sidewalks—Estimates, measurements, titles and assessments for Highway Department	125 65	
Water Works—Surveys, lines, grades, plans and estimates for Water Works Department	135 80	
		$7,046 83

STREETS

The following named streets have been laid out and accepted during the year:—

STREETS LAID OUT AND ACCEPTED, APRIL 1, 1910, TO MARCH 31, 1911

Location of Street.						Plan	
Street	From	To	Length in Feet	Width in Feet	Date of Acceptance	Made by	Date
Ames	Main	Amherst	906.15	60	June 18, 1910	City Engineer	June 25, 1909
Auburn	Sidney	Blanche	183.0	40	July 8, 1910	W. A. Mason & Son	May 3, 1906
Clary	Prospect	N'ly	249.0	40	Oct. 4, 1910	W. A Mason & Son	June, 1910
Ellsworth Park	Ellsworth Ave	E'ly	227.0	30	Nov. 21, 1910	W. A. Mason & Son	June, 1910
Fair Oaks	Cameron	Camp.	240.0	40	Oct. 17, 1910	W. A. Mason & Son	Feb., 1909
Hubbard Park Road....	Brattle	Sparks	765 0	40	June 10, 1910	Henry A. Hancox	April 15, 1910
Leonard Ave.....	Leonard Ave.	Line	19.6	40	Oct. 4, 1910	W. A. Mason & Son	April 8, 1895
Spring	Second	Third	295.0	50	Mar., 1910	City Engineer	Dec. 20, 1909
Waverly	Erie	Pacific	967.0	40 and 50	June 10, 1910	City Engineer	Mar. 1, 1910

Main St. widened on South Side, Wadsworth St to Hayward, Dec. 15, 1909
Main St. widened on South Side, Hayward St. to Carleton, Oct. 4, 1910.

SIXTH STREET BRIDGE

This bridge has been in poor condition for some years. In accordance with the recommendations made in past years an order was passed in 1910 for the reconstruction of the bridge. A contract was accordingly made with Mr. George T. Rendle of Boston on August 1, 1910, to rebuild the entire top of the bridge for the contract price of $4,860. The bridge was rebuilt on practically the same lines as the old one with a draw 32 feet 6 inches wide. The contract was completed November 9, 1910. The total cost of the work, including raising the grade of the street and incidental work, was $5,151.91.

MASSACHUSETTS AVENUE BRIDGE OVER ALEWIFE BROOK

One of the retaining walls at this bridge is in a bad and dangerous condition and should be relaid and made safe at once.

WELLINGTON STREET BRIDGE ON ALEWIFE BROOK

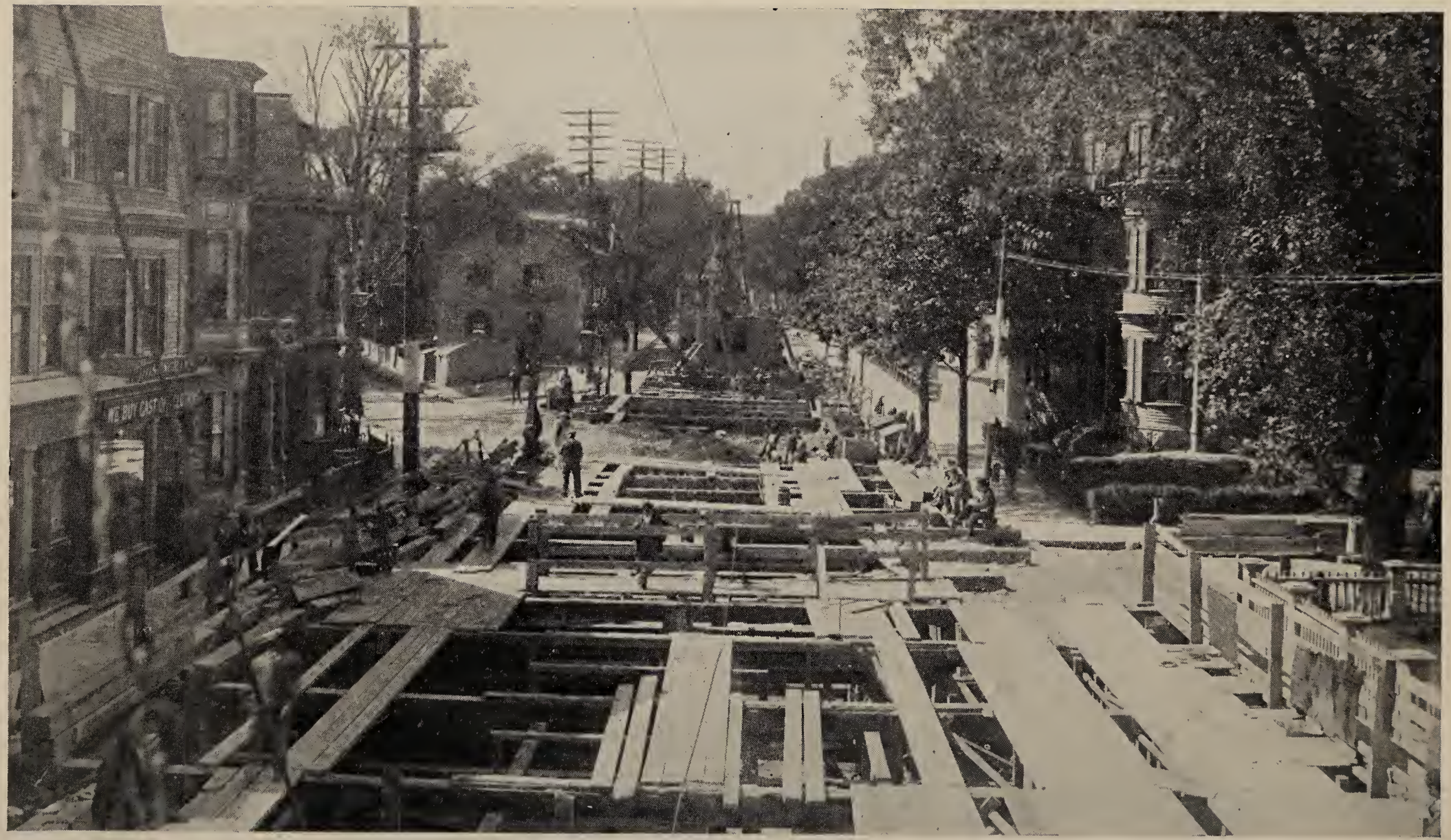
This small bridge is in bad condition and should be rebuilt this coming season.

OTHER BRIDGES

The other bridges, Walden street, Huron avenue and Fountain terrace bridges, are in fairly good condition and will only need partial repainting and some repairs on the cinder protective covering.

PAVEMENT STATISTICS

During the past year 1.453 miles of street pavement have been added to the total amount in the city.



CAMBRIDGE MAIN ST. SUBWAY CONSTRUCTION, MASSACHUSETTS AVE. NEAR REMINGTON ST., LOOKING WEST, MAY 19, 1910.

Pavements in the city may be classified as follows:—

Kind	Length Miles		Area Square Yards	
	1910	Total	1910	Total
Granite Blocks	0.568	10.753	12,095	261,338
Vitrified Bricks	0.370	3.943	6,222	89,163
Bitulithic (Warren Bros. Co.)	0.355	3.819	10,550	96,564
Tar Macadam	.....	0.511	.....	15,402
Hassam	.....	0.840	.....	22,329
Asphalt	.....	0.169	.....	5,315
Macadam	0.142	82.704	1,979	1,173,761
Totals	1.435	102.739	30,846	1,663,872
Wood Block (Harvard Bridge)		0.185		5,512
Granite Block (Cambridge Bridge)		0.161		4,044
Granite Block (Charles River Dam)		0.106		5,469

CAMBRIDGE MAIN STREET SUBWAY CONSTRUCTION.

The work of construction on this subway, which was begun in August, 1909, was pressed by the contractor for the Boston Elevated Railway Company through the season of 1910 and is now substantially completed; a little construction work in Harvard square and at the Boylston street terminal yet remaining to be done.

The entire length of the subway from the beginning of the incline at First street to the end of the incline at Massachusetts avenue near Waterhouse street and including the branch to the Boylston street terminal is about 14.392 feet, or about 2.7 miles. Of this 1,062 feet are included in the Main street, Massachusetts avenue and Mt. Auburn street inclines with no roof or cover. About 2,632 feet of the remainder, from near Inman street to near Remington street, was constructed in tunnel without surface excavation, and the remainder, or about 10,698 feet, was constructed in open cut excavation from the surface.

The surface and pavements of the streets in which subway work has been done have been restored temporarily by the railroad company, but no satisfactory arrangement has yet been made for the final repaving of these streets.

In connection with the construction of the subway there have been built by the railroad company about 30,960 feet of sewer, mostly located on the sides of the streets as described in the last annual

report. In addition the company constructed a sewer in Eliot street and in Boylston street to Topliff court, about 1,051.8 feet in length, in order to avoid the construction of a syphon at Eliot square, as referred to in the last annual report, and to give a better outlet through a sewer built by the City from Topliff court to Charles river. The sewer syphons at Brookline street and at Plympton street, connecting the sewers in the northerly side of the subway with those on the southerly side by passing underneath the subway, have been completed and are now in operation.

On account of the construction by the Boston Elevated Railway Company of enlarged sizes of sundry sewers and the construction of additional ones as requested by the City, payment has been made by the City to the railroad company of $7,733.14 on account.

HIGHWAY IMPROVEMENT COMMISSION

The subject of highway improvement has long been of great popular interest to the citizens of Cambridge. At a meeting of conference held by the Mayor and some City officials with representatives of the Cambridge Taxpayers' Association it was suggested that a special commission be appointed from the City to study in connection with some engineer provided by the Taxpayers' Association the problems of highway improvement in the City and make such suggestions as they might deem practicable. The matter was referred to the Board of Aldermen, who on April 20, 1910, passed the following order:

Ordered, That His Honor, the Mayor, be authorized and requested to appoint a Commission to consider and report to the Mayor and City Council of Cambridge, on or before July 1st, 1910, a comprehensive plan for the development and improvement of the streets of the City of Cambridge, together with any suggestions and recommendations which may to them seem practicable as to improved methods or plant which it may be for the City's interest to obtain.

This Commission to consist of the City Engineer, the Superintendent of Streets and a third person to serve without compensation, with such expert engineers as the Cambridge Taxpayers' Association may suggest. The compensation of the said expert engineers to be met by the Cambridge Taxpayers' Association.

In accordance with this order the Mayor on May 3, 1910, appointed the City Engineer, the Superintendent of Streets, Mr. George M. Clukas of Cambridge and Mr. Harrison P. Eddy, consulting engineer of Boston, as members of the Commission.

CAMBRIDGE MAIN ST. SUBWAY CONSTRUCTION IN HARVARD SQ., LOOKING EAST, FEB. 16, 1911.

The Commission immediately took up its work and on May 21, 1910, made a preliminary report concerning the paving of certain streets which it was proposed to improve during the season of 1910.

Since the date of this report numerous meetings of the Commission have been held for the consideration of many matters brought before it. A visit of inspection to the cities of New York and Philadelphia was made by some members of the Commission and data gathered for a final report. It is expected that the final report of the Commission with its recommendations will be completed at an early day.

SEWERS — GENERAL SEWER CONSTRUCTION

The total length of sewer conduit constructed during the year was 2.269 miles, making the total mileage in the city 145.309 miles. The length of streets newly sewered during the year has been 0.224 miles, making the total mileage of streets sewered with one or more conduits 117.471 miles.

The total cost of sewer construction to date, including $344.69 paid by the Street Department for catchbasins constructed, and $7,733.14 paid the Boston Elevated Railway Company on account of subway sewer construction, has been $2,212,775.77.

Sewers have been built upon streets, as shown by the annexed schedule.

CATCHBASINS

Twenty-six catchbasins have been built during the year at a total cost of $1,627.36. Of this amount $344.69 has been paid by the Street Department.

Sixty-seven catchbasins have been repaired at a cost of $952.52.

Four thousand, one hundred and eighty-one loads of material have been removed from 1,672 catchbasins during the year at a cost of $6,225.88.

Fifteen persons have been licensed as drain layers during the year.

Permits have been granted for sewer repairs or connections, as follows:—

For repairs	57
For connection to combined sewers	103
For connection to sanitary sewers	73
For connection to storm sewers	51

A total of 227 permits for connections and 57 for repairs.

Classified schedule of sewers as built to April 1, 1911

Brick	48.751	miles
Concrete	0.520	"
Pipe	89.828	"
Wood	2.897	"
Miscellaneous	3.313	"
Total	145.309	"

SEWER CONSTRUCTION—SEPARATE SYSTEM OF CONSTRUCTION

The usual amount of construction upon this system was done the past season, as in recent years mostly in the North Cambridge section of the city. The schedule of sewers built under this appropriation follows:—

Raymond Street from Hubbard Avenue to Bellevue Avenue	1162.9	feet
Crescent Avenue, from Raymond Street to Walden Street	1052.0	"
Walden Street, from Raymond Street to the Railroad Bridge	747.7	"
Walden Street, from Hubbard Avenue to Raymond Street	1040.35	"
Whittier Street, from Walden Street to Upland Road	346.5	"
Vincent Street, from Walden Street to Upland Road	346.8	"
Hubbard Avenue, from Raymond Street to Walden Street	816.3	"
Sherman Street, from west of Bolton Street to Walden Street	888.1	"
Mt. Pleasant Street, from Walden Street to the end	618.5	"
Broadway, from Portland Street to west of Windsor Street	1186.45	"
Total length	8205.6	feet

The total expenditure made from this appropriation in constructing these sewers has been $24,776.51.

ALEWIFE BROOK IMPROVEMENT

The work of carrying out this improvement along the line of Alewife Brook, begun in 1909, and to which reference was made in the last annual report, was carried on by the Metropolitan Park Commission during the year 1910 until the appropriation was exhausted, when the work had to stop. The total length of channel excavated from Mystic River to Little Pond is about 12,000 lineal feet, or two and one-fourth miles.

The total amount of excavation done is about 145,000 cubic yards.

The foundation walls of the Broadway and the Massachusetts avenue bridges have been underpinned and the abutments of the Boston & Maine (Arlington Branch) Railroad have been rebuilt.

Concrete retaining walls on the sides of the improved channel have been constructed along the grounds of the Holy Cross Cemetery in Arlington and also the West End Street Railway Company, about

SEWERS CONSTRUCTED BETWEEN APRIL 1, 1910, AND APRIL 1, 1911

Street	From	To	Material	Size in Inches			Number of			Average Depth	Length in feet			Cost		Time when work was			
				Combined	Storm	Sanitary	Manholes	Lamp holes	Inlets		Combined	Storm	Sanitary	Per Foot	Total	Begun		Finished	
Boylston St.....	Charles River.....	Topliff Ct.....	Concrete and Akron pipe.....	.....	30C.I.pipe 28x30 26x28	8	5	.....	38	9.0	.....	752.6	494.1	$10.45	$7,867 09	July	18, 1910	Oct.	22, 1910
Broadway.....	Portland St.....	West of Windsor St.	Akron pipe.....	.....	.....	18&15	5	.....	67	12.5	.....	.....	1,186.45	5.34	6,337 81	June	20, 1910	Sept.	10, 1910
Crescent Ave.....	Raymond St.....	Walden St.....	" "	.....	.....	8	4	.....	77	11.0	.....	.....	1,052.0	2.82	2,970 18	April	13, 1910	June	11, 1910
Edmunds St.....	Massachusetts Ave.	Southerly.....	" "	.....	12&10	8	1	2	27	8.5	.....	309.6	263.4	2.35	727 81	Sept.	9, 1910	Sept.	17, 1910
Fresh Pond P'k'y.	North of Brattle St	Northerly.....	" "	10	.....	.....	1	1	8	9.0	251.9	.....	.....	1.87	472 09	June	28, 1910	July	12, 1910
Hubbard Ave....	Raymond St.....	Walden St.....	" "	.....	.....	8	3	.....	58	10.0	.....	.....	816.3	1.84	1,507 03	Sept.	17, 1910	Oct.	13, 1910
Landsdowne St..	Green St.....	Southerly.....	" "	.....	12	8	.....	2	14	8.5	.....	148.3	150.7	.....	.....	Oct.	31, 1910	Nov.	8, 1910
Landsdowne St..	Pacific St.....	Pilgrim St.....	Concrete and Akron pipe.....	.....	24	10	1	.....	34	11.0	.....	256.5	256.5	11.68	4,757 45	March	1, 1911	Mar.	31, 1911
Mt. Auburn St...	Sparks St.....	Easterly.....	Akron pipe.....	.....	10	8	.....	1	6	9.0	.....	97.8	100.4	2.35	235 82	April	7, 1910	April	12, 1910
*Mt. Auburn St..	East of Sparks St..	Easterly.....	" "	.....	10	8	1	.....	8	8.5	.....	107.5	104.9	3.03	325 67	Nov.	8, 1910	Nov.	13, 1910
Mt. Pleasant St.	Walden St.....	End.....	" "	.....	.....	8	2	1	39	9.0	.....	.....	618.5	1.58	979 55	Oct.	14, 1910	Nov.	1, 1910
Raymond St.....	Hubbard Ave.....	Bellevue Ave.....	" "	.....	.....	10&8	4	1	72	12.0	.....	.....	1,162.9	3.41	3,970 11	April	4, 1910	June	1, 1910
†Rindgefield St..	No. of Rindge Ave.	East of Hollis St....	" "	.....	10	8	1	2	25	9.0	.....	197.4	195.4	1.89	373 66	Mar.	29, 1910	April	5, 1910
Sherman St.....	End as built 1908..	Walden St.....	" "	.....	.....	18-15-12	4	.....	61	10.5	.....	.....	888.1	4.07	3,616 77	Oct.	5, 1910	Dec.	3, 1910
Vincent St.....	Walden St.....	Upland Road.....	" "	.....	.....	8	1	.....	22	8.5	.....	.....	346.8	2.29	792 16	June	28, 1910	July	16, 1910
Walden St.....	Raymond St.....	Hubbard Ave.....	" "	.....	.....	8	2	1	46	8.0	.....	.....	689.4	.....	.....	May	31, 1910	June	16, 1910
Walden St.....	Crescent Ave.....	Railrond Bridge...	" "	.....	.....	8	.....	1	8	11.0	.....	.....	108.3	.....	.....	June	9, 1910	June	14, 1910
Walden St.....	Hubbard Ave.....	Crescent Ave.....	" "	.....	.....	8	.....	1	13	9.0	.....	.....	170.15	.....	.....	Oct.	7, 1910	Oct.	17, 1910
Walden St.....	Sherman St.....	Raymond St.....	" "	.....	.....	8	2	.....	62	9.5	.....	.....	870.2	2.01	3,597 68	Nov.	14, 1910	Dec.	5, 1910
Whittier St.....	Walden St.....	Upland Road.....	" "	.....	.....	8	1	.....	24	9.5	.....	.....	346.5	2.71	940 71	June	15, 1910	June	29, 1910
‡Yerxa Road.....	No. of Van Norden	Near Rindge Ave..	" "	10	.....	.....	1	.....	3	9.0	90.7	.....	.....	2.12	192 74	April	4, 1910	April	7, 1910

* One lamphole removed.
† Removed catch basin at end of old 10-inch sewer and connected new storm thereto.
‡ One old lamphole removed.

1,000 feet in length on each side of the channel, requiring about 3,000 cubic yards of concrete masonry.

The items of expenditure for the work are reported as follows:—

Excavating channel	$77,311 00	
Constructing retaining walls	25,465 00	
Underpinning bridge abutments	10,983 00	
Lowering Metropolitan sewer	3,896 00	
Bridge at Hill's Crossing	1,000 00	
Miscellaneous items of construction	2,560 00	
Engineering and inspection	5,867 00	
Total		$127,082 00

It is now proposed that a further appropriation of $15,000 be made to complete the work so far as now seems necessary.

SEWER DEPARTMENT — FINANCIAL

MAINTENANCE APPROPRIATION

Appropriation	$19,000 00	
Expended	18,566 12	
Balance		$433 88

Expended

Catch basin repairs	$952 52	
Catch basin cleaning	6,225 88	
Cleaning and repairing gates	1,098 10	
Cleaning sumps	206 54	
Cleaning and flushing sewers	2,181 98	
Manhole repairs	107 81	
General expense	3,577 89	
Office	453 54	
Sewer repairs	2,061 40	
Stable expense	1,700 46	
Total		$18,566 12

CONSTRUCTION GENERAL APPROPRIATION

Appropriation	$26,137 48	
Expended	16,593 60	
Balance		$9,543 88

Expended

Rindgefield Street Sewer	$373 66	
Yerxa Road Sewer	192 74	
Mt. Auburn Street Sewer	235 82	
Mt. Auburn Street Sewer	325 67	
Fresh Pond Parkway Sewer	472 09	
Boylston Street Sewer	7,867 09	
Edmunds Street Sewer	727 81	
Massachusetts Avenue, near Trowbridge Street	109 23	
Landsdowne Street	4,757 45	
New Catch Basins	1,282 67	
General Expense	249 37	
		$16,593 60

CONSTRUCTION GENERAL SUBWAY CONSTRUCTION

Appropriation	$8,000 00	
Expended	4,386 67	
Balance		$3,613 33

SEPARATE SYSTEM APPROPRIATION

Appropriation	$25,018 75	
Expended	24,776 51	
Balance		$242 24

Expended

Raymond Street Sewer	$3,970 11	
Crescent Avenue Sewer	2,970 18	
Broadway	6,337 81	
Walden Street	3,597 68	
Whittier Street	940 71	
Vincent Street	792 16	
Hubbard Avenue	1,507 03	
Sherman Street	3,616 77	
Mt. Pleasant Street	979 55	
General Expense	64 51	
Total		$24,776 51

SEPARATE SYSTEM, SUBWAY CONSTRUCTION

Appropriation	$7,000 00	
Expended	3,346 47	
Balance		$3,653 53

GATE CHAMBERS

Appropriation	$161 73	
Expended	158 65	
Balance		$3 08

REVENUE

Sewer Assessments	$3,409 11	
Sundry Receipts (Maintenance)	471 82	
Total		$3,880 93

METROPOLITAN SEWER TAX

Appropriation		$99,695 56
Sinking Fund requirements	$25,520 16	
Interest Account	45,077 95	
Maintenance and Operation	29,097 45	
Total		$99,695 56

WATER WORKS

Water wasted over Stony Brook Dam as follows:—

December,	1909	
January,	1910	385,250,000 gallons
February,	1910	581,400,000 "
March,	1910	800,750,000 "
April,	1910	53,650,000 "
May,	1910	2,000,000 "
June,	1910	
July,	1910	
August,	1910	
September,	1910	
October,	1910	
November,	1910	

The total amount passing the dam during the year, 1,823,050,000 gallons.

TABLE SHOWING COMPARISON BY MONTHS OF THE PRECIPITATION AT STONY BROOK BASIN, HARVARD OBSERVATORY, AND CAMBRIDGE CITY HALL; ALSO THE NUMBER OF DAYS IN WHICH RAIN FELL AT CITY HALL. DECEMBER 1, 1909, TO DECEMBER 1, 1910.

Point of Observation.		1909	1910											
		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total.
Stony Brook Basin.....	Monthly Precipitation..	4.26	4.98	3.88	1.53	2.32	1.05	4.25	2.20	1.18	2.88	1.58	4.21	34.32
Hobbs Brook Basin.....	Monthly Precipitation..	2.35†	4.33	3.35	1.25	2.45	1.00	3.40	1.50	2.10	2.65	1.31	3.85	29.54†
Harvard Observatory...	Monthly Precipitation..	4.47	4.59	3.02	1.82	2.54	1.07	4.98	1.73	0.78	2 55	0.97	3.56	32.08
City Hall....	Monthly Precipitation..	3.22	5.27	4.85	1.49	2.62	1.20	4.73	1.26	0.77	2.28	0.98	4.01	32.68
	No. of days in which rain fell.....	6	11	10	5	8	4	7	4	4	8	6	6	79

†Record unreliable on account of snowfall inaccurately recorded.

TABLE SHOWING RAINFALL AT STONY BROOK BASIN AT WESTON, AT HOBBS BROOK BASIN IN WALTHAM, AND THE CITY HALL AND HARVARD OBSERVATORY, CAMBRIDGE, DECEMBER 1, 1909, TO DECEMBER 1, 1910

Day of Month	1909 DECEMBER				1910 JANUARY				FEBRUARY				MARCH				APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER				OCTOBER				NOVEMBER				Day of Month
	Stony Brook	Hobbs Brook	City Hall	Harvard Observ.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	S. B.	H. B.	C. H.	H. O.	
1														.58	.58	.71	.07			.06								.05									.66	.45	.43	T								1
2				T										.17	.17	.50								T								.10		T				.35					T	T			2
3							T	T		.40	.32		1.03			.01										.05											.48	.65	.48						.75	.45	.47	.44	3
4									.51	.30	.24	.65										.04		T				T					.17	.35	.17		.40	.35	.02	.50					1.75	1.70	1.82	.48	4
5					.20	.20	.17	T												T	.13	.06	.05	.03												.09	.45	.40	.66	.35						T		1.56	5
6					1.02	1.01	1.03	.60																T	.84	.70	.75	.74									.36	.20	.24	.77									6
7	.47	.44	.44		.64	.64	.65	.67					.45	.50	.57	.55		T	T						.11	.15	.18	.04												.18	.15	.18	.16							7
8	.07	.06	.05	.05				T									.45	.55	.55	.42								.14				.07										.14							8
9									.18	.20	.18									.02	.05	.15	.14	.02															T	.30		.17								9
10								T				.17													.95	1.20	1.36	1.15					.27	.70	.05							.15	.38	.30	.36	.44	10
11										*.08	.18						.22	.21	.21					T	.36			.41					.09	.20	.15	.15										T	11
12									1.36	*.57	1.27	.15					.04	.04	.03	.25					.84	.95	1.61	.90																				12
13	.33	.27	.32	T								.01			T										.28			.24		.10																		13
14	.99	.83	.98	1.59	1.00	*.43	1.20	T					.05			.04																.32							T									14
15					.17	*.07	.21	1.17														.10																			.11	.05	.03	T							15
16										.25	.45	.12													.22			.55	.34	.20	.25					T						.04						16
17															.07			T	T						.59	.35	.66	.50				.17																17
18						.25	.31	.21	.88	.50	.89	.80						.10	.16	.09	.41	.20	.25	.19			.15																						18
19								.15									.40	.25	.38	.54								.22					.65	.75	.40	.54	.08	.05									19
20																				.01				.08													.12	.05		T	.06								20
21					.07	.06	.05		.40	.50	.47	.42				.01					.07	.10																.15	.28	.20				.03						21
22					.55	.49	.46	.42	.55	.45	.57	.01					.36	.45	.44	.35				.02																		.56	.45	.40					T			22
23				T				.17				.61								T																					.15	.13	.51								23
24																				T					.06		.02										.12	.15											24
25		*.10	.19		.35	.35	.37	T												T									.55	.50	.36								.04	.40	.40					.15	.20	.10	.09	25
26	1.80	*.65	1.24	1.63	.10	.10	.09	.49									.70	.80	.80	.30				.02								.37																26
27	.60			1.20				T												.50																	.12	.10			.08	.09	.10						27
28										.10	.28	.08												.01				.04	.31	.40	.25	.29					.21	.08	.07	.16									28
29					.88	.65	.73	.49																				T																.90	.90	1.10	.55	29
30						.08		.22									.08	.05	.05										1.00	.30	.40	T												.28	.30	.16			30
31								T							.10						.39	.35	.76	.70								.51																31
	4.26	2.35	3.22	4.47	4.98	4.33	5.27	4.59	3.88	3.35	4.85	3.02	1.53	1.25	1.49	1.82	2.32	2.45	2.62	2.54	1.05	1.00	1.20	1.07	4.25	3.40	4.73	4.98	2.20	1.50	1.26	1.73	1.18	2.10	.77	.78	2.88	2.65	2.28	2.55	1.58	1.31	.98	.97	4.21	3.85	4.01	3.56	

* Record unreliable on account of snowfall.

The low rainfall has caused the greatest draught upon the water stored in the various reservoirs since the construction of the Water Works. The lowest point reached was on December 15, 1910, when the water in Fresh Pond was 1.06 feet below high water mark; the water in Stony Brook Reservoir was 14.66 feet below high water mark and the water in Hobbs Brook Reservoir was 12.55 feet below high water mark.

This meant a depletion of the stored water to the extent of nearly 2,000,000,000 gallons. As bearing upon the question of the present condition of the works and their capacity for furnishing water, the diagram upon the opposite page is shown as being of very great interest.

The total annual rainfall at two stations in this vicinity for sixty years is shown, and also the rainfall at Stony Brook Dam since the station was established in 1890. The marked and quite regular fluctuations from high to low rainfall periods,—averaging about ten years in length for the full period,—are graphically shown and the corresponding fluctuations in the amount of water overflowing and wasting at Stony Brook Dam.

The seriousness of the conditions has lead the City Council to make an appropriation providing for a full investigation of the condition and capacity of the Water Works and what may be done to supplement and prolong the life of the works.

Respectfully submitted,

LEWIS M. HASTINGS,
City Engineer.

SUMMARY OF SEWERAGE STATISTICS

(In form recommended by Sanitary Section of Boston Society Civil Engineers.)

For the year ending April 1, 1911

CAMBRIDGE, MASSACHUSETTS

General

Population by census of 1910 104,839
Total area of city ..... 6.535 sq. miles
Area served by sewerage system ..... about 6.00 sq. miles
Collection system for sewage only .....
Collection system for sewage and surface water .....
Collection system for surface water only .....
Method of disposal—discharge into ocean by the Metropolitan (State) sewer.

COLLECTION

Mains (everything but house and catch basin connections).

	For Sewage Only	For Sewage and Surface Water	For Surface Water Only
Lineal feet extended during the year.....	9,771	342.6	1,869.7

Method of flushing.....By use of hydrant hose
Method of cleaning.....By scraping and flushing

HOUSE CONNECTION

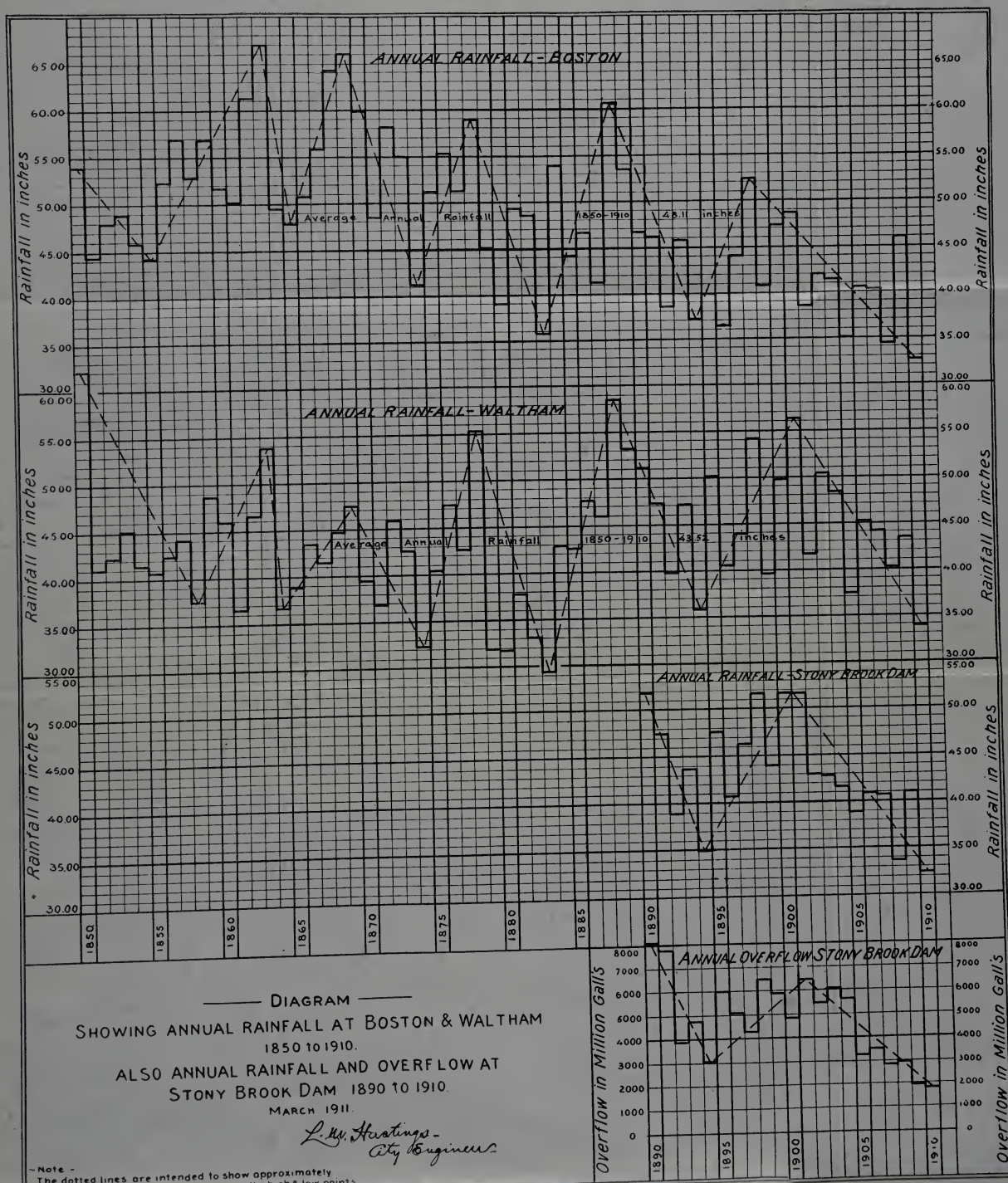
By whom made.....By property owners
Sizes .....6-inch diameter
Number made during year.....227

CATCH BASINS

Number .....
Number cleaned 1,672
Average amount of material removed per catch basin..... 2.5 loads
Cost of removing material per cubic yard $1.98
Cost of removing material per catch basin per year 3.72

DISCHARGE OF SEWAGE

Estimated population using sewer system 100,000
Number of buildings connected (estimated at) 15,365


ANNUAL RAINFALL - BOSTON
Rainfall in inches
Average Annual Rainfall 1850-1910 43.11 inches
ANNUAL RAINFALL - WALTHAM
Rainfall in inches
Average Annual Rainfall 1850-1910 43.52 inches
ANNUAL RAINFALL - STONY BROOK DAM
Rainfall in inches
ANNUAL OVERFLOW STONY BROOK DAM
Overflow in Million Gall's
1850 1855 1860 1865 1870 1875 1880 1885 1890 1895 1900 1905 1910

DIAGRAM

SHOWING ANNUAL RAINFALL AT BOSTON & WALTHAM
1850 to 1910.

ALSO ANNUAL RAINFALL AND OVERFLOW AT
STONY BROOK DAM 1890 to 1910.

MARCH 1911.

L. M. Hastings
City Engineer.

- Note -
The dotted lines are intended to show approximately the average rate of fluctuation between the high & low points.

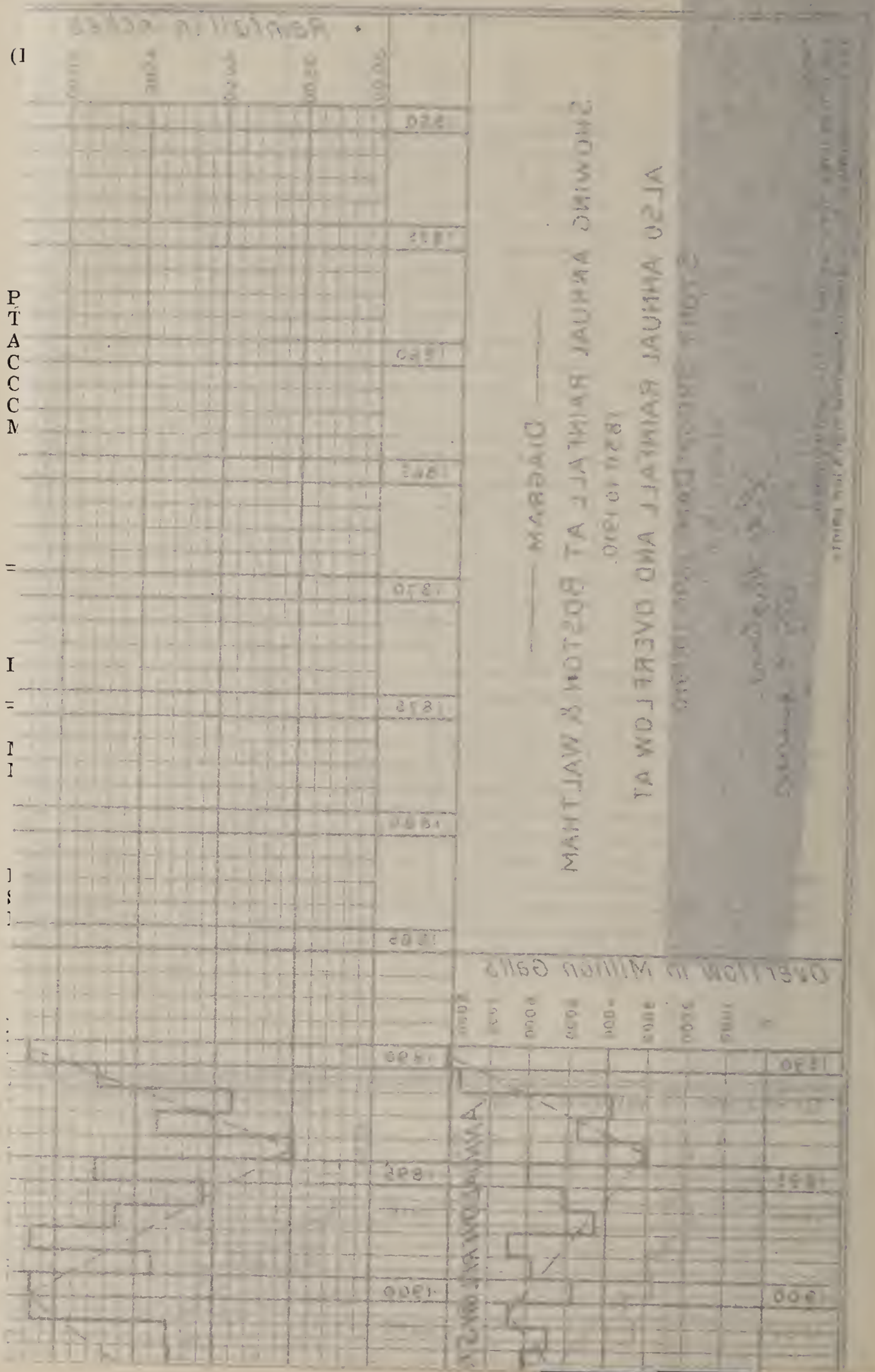


DIAGRAM
SHOWING ANNUAL RAINFALL AT BOSTON & WALTHAM
ALSO ANNUAL RAINFALL AND OVERFLOW AT

FINANCIAL

CONSTRUCTION

Receipts		Expenditures	
Bonds issued	$50,000 00	Collection works:	
Appropriation	66,317 96	(a) Mains	$49,261 90
Assessments not available for expenditure	3,409 11	Balance	17,056 06
			$66,317 96

MAINTENANCE AND OPERATION

Receipts		Expenditures	
Appropriation	$19,000 00	Administration	$4,154 00
		Repairs	3,121 73
		Cleaning sewers	3,008 30
		Cleaning catch basins	6,225 88
		Flushing sewers	478 32
		Unclassified expenses..	1,577 89
		Balance	433 88
Total	$19,000 00		$19,000 00
		Interest on bonds.....	
		Sinking fund	

GENERAL

Total cost of collecting mains .....
Total cost of works to date $2,212,775 77
Bonded debt at date 1,033,000 00
Value of sinking fund at date .....
Average rate of interest on bonds 3½ per cent.
Proportion of cost of system assessed on abutters estimated at ¾.
Yearly assessment for maintenance, nothing.
Method of assessing abutters and rate of assessment, based on frontage and area of lot within 100 feet of street.

The Engineering Department is organized as follows:—

City Engineer,

LEWIS M. HASTINGS.

Principal Assistant,

GEORGE DAVIS.

Assistants,

HENRY T. BURRAGE, office assistant and draughtsman.
G. FRANK HOOKER, in charge of street work.
EDGAR W. DAVIS, in charge of sewer work.

Transitmen,

RAY L. COOLIDGE, ROY S. KEMPTON.

Clerk and Stenographer,

MARY E. ROWEN.

Superintendent of Sewers,

THEODORE L. PIKE.

Two temporary assistants in addition have been employed in the department during the summer.

Respectfully submitted,

L. M. HASTINGS,

City Engineer.

REPORT OF THE CAMBRIDGE WATER BOARD

April 20, 1911.

To the Honorable, the City Council of the City of Cambridge:—

The forty-sixth annual report of the Cambridge Water Board for the year ending March 31, 1911, is herewith submitted for your consideration.

The reports of the Superintendent of Water Works, Water Registrar and Commissioners of the Sinking Fund of the City give in detail the operations and financial condition of the Water Works.

FINANCIAL STATEMENT IN BRIEF

Total cost of the Water Works to March 31, 1910	$6,491,201 12
Expended during the past year on Construction Account	42,650 71
Total cost to March 31, 1911	$6,533,851 83

WATER WORKS BOND ACCOUNT

Whole amount of bonds outstanding	$3,247,600 00
Less value of water debt sinking fund	1,549,716 94
Net water debt on March 31, 1911	$1,697,883 06

During the past year $12,500 of three and one-half per cent. water bonds and $508,000 of four per cent. water bonds matured and were paid.

On March 1, 1911, thirty-year three and one-half per cent. bonds were issued to the amount of $16,500, making the total amount of water bonds outstanding $504,000 less than on March 31, 1910.

CONSUMPTION OF WATER

The total consumption of water for the year ending April 1, 1911, was	3,794,689,680	gallons
The total consumption of water for the year ending April 1, 1910	3,678,588,720	"
Increase over last year	116,100,960	"
Average daily consumption in 1910	10,396,410	"
Average daily consumption in 1909	10,078,325	"
Increase over last year	318,085	"

The increased daily consumption of water is due wholly to the increased use by the industrial enterprises in the City. This is evidenced by the fact that the charges for metered water in 1910 were $24,305 in excess of the charges in 1909.

If the 318,000 gallons daily increase for 1910 were charged for at the maximum rate of fifteen cents per hundred cubic feet the total charge would amount to $23,895 for the year, whereas, as stated above, our increased charges were $24,305. This result demonstrates conclusively that the waste of water is being held in check and is decreasing rather than otherwise.

WATER SUPPLY

We have had during the past year an almost unprecedentedly small amount of rainfall and the effect is clearly shown in our storage reservoirs. The rainfall for the year has been but thirty-four inches, the smallest rainfall in twenty-eight years. In this connection attention is called to the accompanying chart, prepared by the City Engineer, showing the rainfall for the past sixty years. It will be noticed that the rainfall increases and decreases in cycles of ten years, and, by the compensating law of averages, we should begin this year to get an increased rainfall, growing with each succeeding year for five years and then gradually tending downward again.

At the present time Hobbs Brook basin is not within eight feet of being full; Stony Brook Reservoir is down about one foot, and Fresh Pond is down about two feet. We hope that the spring rains will give us several feet more in Hobbs Brook Basin, and that Stony Brook Basin and Fresh Pond will be completely filled.

(Note:—At the date of this report (April 20th, 1911) Stony Brook Reservoir is filled to overflowing, Fresh Pond is substantially full, and Hobbs Brook Reservoir is about seven and one-half feet below high water mark.)

FUTURE DEVELOPMENT

The Legislature has authorized the City to issue additional water bonds to the amount of $500,000 for the further development of the Water Works. That any further expenditure, if made, may be judi-

ciously spent under thoroughly matured plans, the Board, last year, suggested that expert study and report be obtained on the future development of the works, and later the City Council authorized an appropriation of $5,000 for this purpose. The Board has since secured the services of Mr. Frederic P. Stearns to act as Consulting Engineer, and his report will later be presented to the City Council with such recommendations by the Water Board as seem advisable.

HOBBS BROOK CONDUIT LAND DAMAGES

Settlements have been made during the year with the First Baptist Church of Watertown, the Estate of Charles Bemis, Horace Chenery, and the Lyndonville Creamery. This leaves but a few cases to be disposed of, the most important of which are those of Frank Coolidge, Heirs of James B. Gilmore, and Estate of Thomas R. Ford.

METERS

Four hundred thirty-two meters have been set during the year, making the total number now placed four thousand six hundred sixty.

The number of water services without meters is 10,800, thus showing thirty per cent. of total services metered.

All of the meters set were placed on application by the owners.

IN GENERAL

During the year the Board submitted to the City Council a revised schedule of rates for domestic consumption. The revision was adopted by the City Council and will go into effect May 1, 1911. The effect of the revision will be to reduce the receipts for the coming year $21,000. Notwithstanding this large reduction we expect to have a surplus at the end of the coming financial year.

The past year has been very prosperous from a financial stand-

point, our receipts showing an increase of nearly $25,000 more than was anticipated, and enabling us to carry to the Water Works sinking fund $19,292.55 more than the legal requirement.

ANDREW J. RADY,
JAMES J. SCULLY,
JOSEPH E. DOHERTY,
JOHN F. O'BRIEN,
BERNARD E. McDERMOTT,

Cambridge Water Board.

REPORT OF THE WATER REGISTRAR

WATER REGISTRAR'S OFFICE,
CAMBRIDGE, April 1, 1911.

To the Cambridge Water Board:—

In compliance with the requirements of the City Ordinance I present the forty-sixth annual report of the operations of this department, showing the receipts, expenditures, abatements, etc., for the year ending March 31, 1911.

Amount of bills remaining unpaid March 31, 1910:—

Water rates	$6,039 38
Supplies and repairs	1,836 99
Off and on	164 00
Seals	14 75
Maintenance Account	1,738 93
Construction Account	365 42

Amount of bills placed in hands of City Treasurer for collection from April 1, 1910, to March 31, 1911:—

Water rates	374,955 00	
Supplies and repairs	6,920 17	
Off and on	418 00	
Rents	72 00	
Seals	50 00	
Maintenance Account	2,997 56	
Construction Account	20,459 04	
Total bills		$416,031 24

There has been collected:—

Water rates	$376,878 95
Supplies and repairs	6,798 93
Off and on	429 00
Rents	72 00
Seals	54 25
Maintenance Account	2,996 94
Construction Account	18,997 41

There has been abated:—

Water rates, off and on, and seals, supplies and repairs, and Construction Account	2,023 66

There remains uncollected:—

Water rates	2,144 75	
Supplies and repairs	1,913 25	
Off and on	145 00	
Seals	10 50	
Maintenance Account	1,739 55	
Construction Account	1,827 05	
		$416,031 24

EXPENDITURES

Construction Account, from April 1, 1910, to March 31, 1911	$42,650 71	
Maintenance Account, from April 1, 1910, to March 31, 1911	90,114 15	
		$132,764 86

ABATEMENTS

Water rates and supply and repair bills, from April 1, 1910, to March 31, 1911, to amount of	$2,023 66

REFUNDS

Water rates from April 1, 1910, to March 31, 1911, to the amount of	$1,156 53	
Which amount deducted from receipts	376,878 95	
Leaves net receipts for water	$375,722 42	
Add off and on, rents, fines, seals, and Maintenance Account	10,351 12	
Makes net receipts of rates, fines, etc		$386,073 54

OFF AND ON

Water has been shut off for non-payment of rates, or per order on account of vacancy, and seals have been applied to fixtures by requests of owners as follows:—

Water shut off from April 1, 1910, to March 31, 1911	563
Supplies let on, shut off from April 1, 1910, to March 31, 1911	393
Supplies let on, shut off in previous years	66
New supplies let on, from April 1, 1910, to March 31, 1911	175
Seal locks applied to fixtures from April 1, 1910, to March 31, 1911	215
Seal locks removed, put on from April 1, 1910, to March 31, 1911	78
Seal locks removed, put on in previous years	168

Statement of yearly revenue received from water rates since the purchase of the works by the City:—

From April 28, 1865, to December 1, 1865	$32,367 19
From December 1, 1865, to December 1, 1866	40,073 27
From December 1, 1866, to December 1, 1867	53,733 62
From December 1, 1867, to December 1, 1868	63,747 42
From December 1, 1868, to December 1, 1869	76,149 30
From December 1, 1869, to December 1, 1870	92,605 95
From December 1, 1870, to December 1, 1871	111,782 65
From December 1, 1871, to December 1, 1872	127,201 30
From December 1, 1872, to December 1, 1873	146,117 32
From December 1, 1873, to December 1, 1874	153,634 27
From December 1, 1874, to December 1, 1875	138,880 37
From December 1, 1875, to December 1, 1876	179,166 76
From December 1, 1876, to December 1, 1877	154,843 59
From December 1, 1877, to December 1, 1878	157,443 91
From December 1, 1878, to December 1, 1879	164,681 90
From December 1, 1879, to December 1, 1880	173,325 49
From December 1, 1880, to December 1, 1881	170,062 73
From December 1, 1881, to December 1, 1882	177,430 80
From December 1, 1882, to December 1, 1883	179,361 89
From December 1, 1883, to December 1, 1884	161,526 27
From December 1, 1884, to December 1, 1885	185,544 36
From December 1, 1885, to December 1, 1886	199,404 43
From December 1, 1886, to December 1, 1887	204,748 64
From December 1, 1887, to December 1, 1888	211,156 27
From December 1, 1888, to December 1, 1889	221,124 70
From December 1, 1889, to December 1, 1890	231,116 32
From December 1, 1890, to December 1, 1891	227,054 53
From December 1, 1891, to December 1, 1892	237,527 08
From December 1, 1892, to December 1, 1893	242,219 78
From December 1, 1893, to December 1, 1894	250,032 71
From December 1, 1894, to December 1, 1895	268,813 62
From December 1, 1895, to December 1, 1896	281,030 00
From December 1, 1896, to December 1, 1897	291,457 62
From December 1, 1897, to December 1, 1898	297,129 78
From December 1, 1898, to December 1, 1899	302,569 00
From December 1, 1899, to December 1, 1900	319,479 37
From December 1, 1900, to December 1, 1901	320,468 01
From December 1, 1901, to December 1, 1902	323,000 53
From December 1, 1902, to December 1, 1903	333,777 34
From December 1, 1903, to December 1, 1904	339,109 27
From December 1, 1904, to December 1, 1905	343,916 00
From December 1, 1905, to December 1, 1906	355,768 47
From December 1, 1906, to December 1, 1907	373,151 35
From December 1, 1907, to March 31, 1909 (16 months)	410,533 41
From April 1, 1909, to March 31, 1910	351,264 86
From April 1, 1910, to March 31, 1911	375,722 42

Comparative Statement

	1909-1910		1910-1911	
Construction Account.				
(Hobbs Brook Conduit.)				
Received.				
Balance of 1908 appropriation	$5,679 42			
Transferred	779 28			
Balance of 1909–1910 appropriation			$3,759 36	
Transferred from Hobbs Brook Conduit Extension			1,802 24	
From sale of bonds			10,000 00	
		$6,458 70		$15,561 60
Expended.				
Hobbs Brook Conduit extension	$174 75			
Land settlements, etc.	6,283 95		$14,926 21	
Balance to credit of 1911–1912			635 39	
		6,458 70		15,561 60
Construction Account.				
(General.)				
Received.				
From sale of old material, etc.	$1,447 17			
From balance of 1908 appropriation.	5,389 21			
Transferred	198 82			
From balance of 1909–1910 appropriation			$3,664 45	
From bonds issued			6,500 00	
		$7,035 20		$10,164 45
Expended.				
Sundry bills and pay rolls	$7,035 20		$6,063 26	
Balance to credit of 1911–1912			4,101 19	
		7,035 20		10,164 45
Construction Account.				
(Subway.)				
Received.				
From bonds sold	$10,000 00			
From Boston Elevated Railway Company for work and materials	20,391 98			
Balance from 1909–1910 appropriation			$9,812 17	
Appropriation			17,009 00	
		$30,391 98		$26,812 17
Expended				
Sundry bills and payrolls	$20,187 83		$21,661 24	
Transferred to Hobbs Brook and General Construction Account.	978 10			
Balance to credit of Construction Account	9,226 05		5,150 93	
		30,391 98		26,812 17
Maintenance Account.				
Received.				
From rates, fines, etc.	$361,896 86		$389,253 73	
Accrued interest on bonds sold	21 87		455 33	

COMPARATIVE STATEMENT.—(Continued.)

	1909-1910		1910-1911	
Balance from 1908-1909	$8 02			
Balance from 1909-1910		$361,926 75	$33 01	$389,742 07
Expended.				
Salaries, Superintendent, Registrar, et als	$11,796 68		$12,296 67	
Pumping Salaries and other expenses	17,276 25		23,582 16	
Ice for drinking fountains	823 48		712 65	
Purchase and setting meters	1,999 86		4,824 02	
Services of City Treasurer and City Solicitor	2,500 00		2,500 00	
Refunds and abatements	3,483 60		3,180 19	
Sinking fund	120,999 50		120,624 50	
Interest on water debt	145,050 25		137,582 75	
Serial bond paid	12,500 00		12,500 00	
General Expenses and Reservoirs	45,284 12		46,996 58	
Playground			650 00	
Study of water supply			5,000 00	
Balance to credit of Maintenance Account	33 01			
Balance due sinking fund			19,292 55	
		361,926 75		389,742 07
Balance to credit of Maintenance Account of 1909-1910		$33 01		
Balance due sinking fund 1910-1911				$19,292 55

The usual house-to-house inspection has been made.

Respectfully submitted,

WALTER H. HARDING,

Registrar.

ANNUAL STATEMENT OF THE WATER REGISTRAR TO THE COMMITTEE ON ACCOUNTS, MARCH 31, 1911

March 31, 1911.

Uncollected March 31, 1910:—

Water rates	$6,039 38	
Supplies and repairs	1,836 99	
Off and on	164 00	
Seals	14 75	
Maintenance Account	1,738 93	
Construction Account	365 42	
		$10,159 47

Bills placed in the hands of the City Treasurer for collection from April 1, 1910, to March 31, 1911:—

Water rates	$374,955 00	
Supplies and repairs	6,920 17	
Off and on	418 00	
Rents	72 00	
Seals	50 00	
Maintenance Account	2,997 56	
Construction Account	20,459 04	
		405,871 77
Total bills		$416,031 24

There has been collected:—

Water rates	$376,878 95	
Supplies and repairs	6,798 93	
Off and on	429 00	
Rents	72 00	
Seals	54 25	
Maintenance Account	2,996 94	
Construction Account	18,997 41	
		$406,227 48

There has been abated:—

Water rates, off and on, and seals, supplies and repairs, and Construction Account	2,023 66

There remains uncollected:—

Water rates	$2,144 75		
Supplies and repairs	1,913 25		
Off and on	145 00		
Seals	10 50		
Maintenance Account	1,739 55		
Construction Account	1,827 05		
		7,780 10	
Total bills for collection			$416,031 24
Less abated	$2,023 66		
Less refunded	1,156 53		
Less unpaid	7,780 10		
			10,960 29
Net receipts			$405,070 95

Attest:

WALTER H. HARDING,
Registrar.

CAMBRIDGE, April, 1911.

We have examined the accounts of the Water Registrar and find that they correspond in the amounts collected, abated, refunded, and uncollected with the statement submitted by the City Treasurer and verified by the City Auditor.

Committee on Accounts.

The bonded Water Debt matures as follows:—

May 1, 1911	3 1-2s	12,500 00
Oct. 1, 1911	4s	35,000 00
Jan. 1, 1912	4s	150,000 00
May 1, 1912	4s	75,000 00
May 1, 1912	3 1-2s	12,500 00
Nov. 1, 1912	4s	45,000 00
Feb. 1, 1913	4s	100,000 00
May 1, 1913	3 1-2s	12,500 00
Aug. 1, 1913	4s	50,000 00
May 1, 1914	3 1-2s	12,500 00
Apr. 1, 1915	4s	200,000 00
May 1, 1915	3 1-2s	12,500 00
Aug. 1, 1915	4s	200,000 00
Apr. 1, 1916	4s	100,000 00
May 1, 1916	3 1-2s	12,500 00
July 1, 1916	4s	200,000 00
Aug. 1, 1916	4s	100,000 00
Oct. 1, 1916	4s	265,100 00
Apr. 1, 1917	3 1-2s	200,000 00
May 1, 1917	3 1-2s	12,500 00
July 1, 1917	3 1-2s	100,000 00
Nov. 1, 1917	3 1-2s	75,000 00
Dec. 1, 1917	3 1-2s	140,000 00
May 1, 1918	3 1-2s	12,500 00
May 2, 1918	3 1-2s	50,000 00
June 1, 1918	3 1-2s	60,000 00
Nov. 1, 1918	3 1-2s	50,000 00
May 1, 1919	3 1-2s	12,500 00
Nov. 1, 1919	3 1-2s	23,000 00
May 1, 1920	3 1-2s	12,500 00
Nov. 1, 1920	3 1-2s	30,000 00
May 1, 1921	3 1-2s	12,500 00
July 1, 1921	3 1-2s	30,000 00
May 1, 1922	3 1-2s	12,500 00
July 1, 1922	3 1-2s	13,500 00
Nov. 1, 1922	3 1-2s	5,000 00
May 1, 1923	3 1-2s	12,500 00
Apr. 1, 1924	4s	300,000 00
May 1, 1924	3 1-2s	12,500 00
May 1, 1925	3 1-2s	12,500 00
May 1, 1925	3 1-2s	15,000 00
May 1, 1925	3 1-2s	26,000 00
May 1, 1925	3 1-2s	5,000 00
June 1, 1928	4s	20,000 00
Feb. 1, 1930	3 1-2s	5,000 00
Feb. 1, 1930	3 1-2s	5,000 00
May 1, 1936	4s	280,000 00
June 1, 1937	4s	49,000 00
July 1, 1937	4s	25,000 00
Aug. 1, 1938	4s	17,000 00
Mar. 1, 1941	3 1-2s	10,000 00
Mar. 1, 1941	3 1-2s	6,500 00
		$3,247,600 00

REPORT OF THE SUPERINTENDENT OF WATER WORKS

CAMBRIDGE, MASS., April 1, 1911.

To the Honorable Water Board of the City of Cambridge:—

GENTLEMEN:—Complying with the requirements of the City Ordinance, I herewith submit the annual report of the Superintendent for the year extending from April 1, 1910, to March 31, 1911.

CONSUMPTION

Total quantity of water consumed from April 1, 1910, to March 31, 1911	3,794,689,680
Total quantity of water used for construction and sprinkling streets, from April 1, 1910, to March 31, 1911	85,363,875
Total quantity of water used for flushing sewers from April 1, 1910, to March 31, 1911	5,300,000
Total quantity of water used for cleaning sanitaries from April 1, 1910, to March 31, 1911	7,550,000
Total quantity of water used for public buildings from April 1, 1910, to March 31, 1911	48,750,000
Total quantity of water used for drinking fountains from April 1, 1910, to March 31, 1911	35,050,000
Total quantity of water used for testing meters from April 1, 1910, to March 31, 1911	16,812
Total quantity of water used for fire purposes from April 1, 1910, to March 31, 1911	5,650,000
Number of gallons daily for each inhabitant on account of water pumped, from April 1, 1910, to March 31, 1911	99.16

COMPARATIVE STATEMENT OF TOTAL CONSUMPTION DURING THE PAST TEN YEARS.

Year.	Annual Consumption.	Increase or Decrease.	Average Daily Consumption.	Increase or Decrease.	Average Daily Consumption per Capita.	Estimated Population.
	Gallons	Gallons	Gallons	Gallons	Gallons	
*1901	2,785,156,440	133,879,200 increase	7,630,566	366,793 increase	80.87	92,716
*1902	2,930,553,545	145,397,105 "	8,028,914	398,348 "	85.27	94,152
*1903	3,160,704,360	230,150,815 "	8,659,463	630,549 "	89.56	96,685
*1904	3,210,982,145	50,277,785 "	8,773,175	113,712 "	89.68	97,825
*1905	3,294,159,640	83,177,495 "	9,025,095	251,920 "	92.63	97,426
*1906	3,386,180,600	92,020,960 "	9,277,207	252,112 "	92.83	99,934
*1907	4,038,875,720	652,695,120 "	11,065,413	1,788,206 "	110.00	99,912
*1908	3,842,170,340	196,705,380 decrease	10,497,733	567,680 decrease	104.00	100,000
§1909	3,692,451,980	149,718,360 "	10,116,307	381,426 "	101.00	100,000
§1910	3,678,588,720	13,763,260 "	10,078,325	37,982 "	97.84	103,000
§1911	3,794,689,680	116,100,960 increase	10,396,410	318,085 increase	99.16	104,839

* Figures for year extending from December 1 to November 30.

§ Figures for year extending from April 1 to March 31.

The following statistics refer to year extending from April 1, 1910, to March 31, 1911:—

Total amount of coal consumed	4,869,625 lbs.
Daily average coal consumed	13,341 lbs.
Coal consumed per million gallons pumped	1,284 lbs.
Highest water elevation in Fresh Pond was on July 6, 1910	16.87
Lowest water elevation in Fresh Pond was on March 4, 1911	14.21
Average height of water in Fresh Pond	15.87
Highest water elevation in Stony Brook Reservoir was on April 28, 1910	81.16
Lowest water elevation in Stony Brook Reservoir was on December 21, 1910	66.16
Highest water elevation in Hobbs Brook Reservoir, No. 1, Lincoln Street, was on June 14, 1910	180.80
Lowest water elevation in Hobbs Brook Reservoir, No. 1, Lincoln Street, was on December 23, 1910	169.65
Highest water elevation in Hobbs Brook Reservoir, No. 2, Winter Street, was on May 11, 1910	178.80
Lowest water elevation in Hobbs Brook Reservoir, No. 2, Winter Street, was on December 15, 1910	168.45
Total rainfall at Fresh Pond pumping station	28.86
Total rainfall at Stony Brook Reservoir	31.78
Total rainfall at Hobbs Brook Reservoir	28.26

TOTAL RAINFALL FOR THE PAST TEN YEARS AT FRESH POND RESERVOIR

CONFORMING TO NEW FISCAL YEAR ENDING MARCH 31

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches	Inches.	Inches.
April	8.80	3.56	3.98	8.57	2.87	2.02	2.64	1.54	3.41	2.46
May	6.96	1.08	.35	3.58	1.30	5.73	2.86	3.03	1.53	1.31
June	1.33	2.40	8.46	2.74	4.41	3.81	2.66	70	3.45	4.44
July	4.70	3.14	3.72	1.70	1.86	3.26	1.20	3.21	1.45	1.87
August	4.17	3.62	3.81	2.53	3.06	1.43	.69	3.40	3.03	.84
September	3.74	3.36	1.72	5.87	5.97	2.31	7.92	.64	5.11	2.51
October	2.86	4.65	4.54	1.85	1.30	2.86	2.57	3 16	.88	1.08
November	2.67	1.37	1.70	2.83	2.91	2.89	5.95	.58	3.15	3.72
December	7.71	4.37	2.87	1 92	3.63	4.10	3.87	2:27	3.11	2.09
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
January	1.97	3.19	5 00	3.47	2.46	2.46	3.28	3.92	4.53	2.64
February	4.29	3.50	3.00	1.09	2.73	1.59	3.39	4.81	4.44	2.82
March	6.16	4.89	2.35	2.52	5.67	1.91	2.97	3.41	.88	3.08
Total, inches	55.36	39.13	41.50	38.67	38.17	34.28	40.00	30.67	34.97	28.86

TOTAL RAINFALL FOR THE PAST YEAR AT FRESH POND, STONY BROOK AND HOBBS BROOK RESERVOIRS

	Fresh Pond Reservoir.	Stony Brook Reservoir.	Hobbs Brook Reservoir.
1910	Inches	Inches	Inches
April	2.46	2.32	2.45
May	1.31	1.07	1.00
June	4.44	4.85	3.40
July	1.87	2.20	1.50
August	.84	1.18	2.10
September	2.51	2.88	2.65
October	1.08	1.58	1.31
November	3.72	4.21	3.85
December	2.09	2.26	1.07
1911			
January	2.64	2.82	2.84
February	2.82	2.97	2.89
March	3.08	3.44	3.20
Total, (inches)	28.86	31.78	28.26

TOTAL RAINFALL FOR THE PAST TEN YEARS AT FRESH POND, STONY BROOK AND HOBBS BROOK RESERVOIRS

	Fresh Pond Reservoir.	Stony Brook Reservoir.	Hobbs Brook Reservoir.
	Inches.	Inches.	Inches.
Year extending from December 1 to November 30.			
1901	46.20	46.77	43.72
1902	43.31	44.58	42.24
1903	44.23	45.97	47.42
1904	42.89	41.18	39.95
1905	32.68	38.40	37.96
1906	38.71	39.16	39.16
1907	36.55	42.32	39.20
1908	29.77	34.93	31.50
Year extending from April 1, to March 31.			
1909	30.67	34.87	34.77
1910	34.97	37.83	35.08
1911	28.86	31.78	28.26

FRESH POND PUMPING STATION.

	Running Time.			Pumpage.		Coal Consumed.		Rainfall.	Average Height of Pond.
	Engine No.	Total.	Daily Average.	Total.	Daily Average	Total	Daily Average		
1910		Hours.	Hours.	Gallons.	Gallons.	Pounds.	Pounds.	Inches.	Feet.
April	7	379.50	12.65	308,385,440	10,279,515	400,950	13,365	2.46	16.47
May	7	404.50	13.05	325,120,400	10,487,755	399,500	12,887	1.31	16.27
June	7	388.75	12.95	316,075,760	10,535,858	391,275	13,042	4.44	16.34
July	7	414.25	13.36	338,417,200	10,916,684	417,900	13,480	1.87	16.55
August	7	393	12.68	319,956,560	10,321,179	392,600	12,665	.84	16.32
September	7	369.50	12.31	300,333,320	10,011,110	387,600	12,920	2.51	16.56
October	7	389.50	12.53	316,343,280	10,204,622	406,400	13,109	1.08	16.38
November	7	364.50	12.15	295,519,200	9 850,573	382,400	12,746	3.72	16.11
December	7	409	13.19	331,696,640	10,699,890	434,900	14,029	2.09	15.73
1911									
January	7	400.25	12.91	322,930,520	10,417,113	425,000	13,709	2.64	14.86
February	7	381.50	13.62	301,850,120	10,780,361	400,100	14,289	2.82	14.36
March	7	403.50	13.01	318,063,240	10,260,104	431,000	13,903	3.08	14.45
Total				3,794,689,680		4,869,625		28.86	
Daily Average			12.87		10,396,410		13,341		15.87

FRESH POND AND SURROUNDINGS

The usual work has been required in keeping the roads, walks and grounds in condition. We are much in need of suitable gravel for the roads as the wear on them from automobiles is very great, and I think that possibly cracked stone may be the best material for that purpose.

The moth work has been about the same as during the past few years.

The average height of the pond has been 15.87 and the quality of the water excellent.

All grass not needed by the department has been sold at public auction.

On the southwest side of the pond a plot of about two acres has been taken for the purpose of a playground and is now being graded.

The buildings will not require extensive repairs this year.

A considerable amount of material and tools which were left from the conduit construction and are now in the storehouse should in my opinion be disposed of if there is no probability of its being used soon.

FRESH POND RESERVOIR.

	Lowest Elevation During Month.	Highest Elevation During Month.	Monthly Rainfall.
1910			
April 1	.....	16.63	.....
April 18	16.31	.....	2.46
May 1	.....	16.46	.....
May 30	16.02	.....	1.31
June 5	15.99	.....	.....
June 30	.....	16.74	4.44
July 6	.....	16.87	.....
July 30	16.31	.....	1.87
August 1	.....	16.37	.....
August 12	16.28	.....	.84
September 1	16.29	.....	.....
September 14	.....	16.69	2.51
October 1	.....	16.62	.....
October 30	16.09	.....	1.08
November 7	.....	16.27	.....
November 29	15.95	.....	3.72
December 1	.....	16.18	.....
December 31	15.28	.....	2.09
1911			
January 4	.....	15.28	.....
January 28	14.40	.....	2.64
February 12	.....	14.42	.....
February 25	14.25	.....	2.82
March 4	14.21	.....	.....
March 31	.. ..	14.99	3.08
			28.86

PUMPING STATION

The machinery and boilers at the pumping station are in good condition and have required no extensive repairs during the year.

The Leavitt engine has pumped all the water used in the past year, but the Worthington engines are kept in condition to be started at any time.

The buildings have been thoroughly repaired and the stone steps have been reset and pointed. The roofs and gutters have been repaired, and the exterior of the Pumping Station, the coal shed and the interior of the engine room have been painted.

On May 17, 1910, Mr. William J. Massey was appointed chief engineer, in place of Mr. Blaisdell, deceased; he comes to the position well recommended and with good experience and I am confident will be a valuable man for the department.

The grounds about the station have received the usual care.

In order that we may handle our coal more cheaply and avail ourselves of the whole storage capacity of the coal shed, and thereby be able to contract for a year's supply at one time, taking advantage of low prices, I would recommend that a conveyor with hopper and scales be installed at the Pumping Station.

OPERATING EXPENSES AT THE PUMPING STATION

For the Year Extending from April 1, 1910, to March 31, 1911

Building repairs (special appropriation)		$1,335 44
Advertising	$29 00	
Analysis of coal	20 68	
Building repairs (ordinary)	195 96	
Clay, cement, etc	3 00	
Clock repairs	1 50	
Electric work and supplies	74 27	
Engines, boilers and repairs	106 88	
Expressage	8 60	
Fuel	9,888 53	
Hardware, tools, etc	50 17	
Ice	17 44	
Inspectors of boilers	15 00	
Legal expense of Haven case	200 00	

Lumber	10 81	
Oil, waste and packing	881 82	
Sealer of weights and measures	1 64	
Stationery	6 75	
Telephone	62 11	
	$11,574 16	
Salaries, labor, etc	9,072 56	
		$20,646 72
		$21,982 16

FORTY-INCH STEEL PIPE LINE

This steel main is in good condition as far as we can see and has required no repairs during the year.

PAYSON PARK RESERVOIR

The basins are in about the same condition as at the date of last report.

The gate house and fixtures are in good condition.

A portion of the banks was given a coat of dressing during the year and another portion should be so treated this coming year.

PIPE YARD

The scales, which we have had on hand for many years, have been set at the yard; a substantial concrete pit has been furnished for them and they are proving a much needed convenience.

The buildings will need painting another year.

LEAKAGE

Twenty-two hundred (2200) leaks have been reported during the year, this number being the smallest that we have cared for in five years. They were discovered as follows:—

They were discovered as follows:—

190 on supplies.

5 on 4-inch mains,

16 on 6-inch mains.
2 on 8-inch mains.
1 on 10-inch mains.
4 on 12-inch mains.
2 on 20-inch mains.
1 on pumping main.
4 on hydrants.
4 on street watering standpipes.
1 on fountain.
1829 on premises.
7 on gates.
133 on supplies were caused in connection with subway construction.

Eighteen hundred twenty-three (1823) of the leaks on premises were found by the inspectors when on their annual canvass for fixtures. They are classified as follows:—

1397 on water closets.
339 on faucets.
42 on basins.
22 on baths.
11 on washtubs.
8 on pipes.
4 on tanks.

Electrolytic corrosion has caused fourteen (14) leaks during the past year. This number is one-third smaller than that of last year.

Following is an account of the number of leaks reported during the past nine years and those caused by electrolytic corrosion:—

*1902	2,339	13
*1903	2,281	10
*1904	2,114	24
*1905	2,119	14
*1906	2,274	24
*1907	2,999	24
†1907-9	3,537	10
‡1910	2,571	21
‡1911	2,200	14

* For years ending November 30.
† For sixteen months ending March 31, 1909.
‡ For year ending March 31.

TABLE SHOWING INCREASE IN THE TOTAL CONSUMPTION FOR THE YEAR ENDING MARCH 31, 1911, AS COMPARED WITH THE YEAR ENDING MARCH 31, 1910.

	Total Consumption—Year Ending March 31, 1910.	Total Consumption—Year Ending March 31, 1911.	Increase.	Decrease.
	Gallons.	Gallons.	Gallons.	Gallons.
April	289,039,960	308,385,440	19,345,480	
May	301,472,160	325,120,400	23,648,240	
June	312,884,000	316,075,760	3,191,760	
July	319,497,200	338,417,200	18,920,000	
August	310,544,080	319,956,560	9,412,480	
September	291,126,000	300,333,320	9,207,320	
October	289,478,720	316,343,280	26,864,560	
November	285,215,480	295,517,200	10,301,720	
December	314,137,560	331,696,640	17,559,080	
January	343,346,080	322,930,520		20,415,560
February	308,623,800	301,850,120		6,773,680
March	313,223,680	318,063,240	4,839,560	
Total	3,678,588,720	3,794,689,680	116,100,960	

MAIN PIPE

As recommended in my last two reports, I again call the attention of the Water Board to the necessity of cleaning some of the large mains by the process used so satisfactorily on Austin street.

We will truly realize the importance of this if we are soon obliged to renew these mains when a small expenditure at present will postpone for some years the large outlay attending such work.

The amount of construction work and renewals of main pipe done during the year was as follows:—

In Ames street, from Main street, south, 484 feet of 8-inch pipe were laid.

In Concord avenue, from Smith place, west, 577 feet of 6-inch pipe have been laid.

In Cottage Park avenue, from Massachusetts avenue, south, 49 feet of 6-inch pipe have been laid in order to secure a larger pipe for a hydrant set near the corner of Massachusetts avenue. (The old 4-inch pipe has been removed.)

In Edmunds street, from Massachusetts avenue, west, 304 feet of 4-inch pipe have been laid.

In Francis avenue, from Bryant street, north, 150 feet of 6-inch pipe were laid to supply the Andover Theological Seminary.

In Franklin street, from Lansdowne street, west, 223 feet of 6-inch pipe have been laid.

In Fresh Pond Parkway, on the west side, 590 feet of 6-inch pipe have been laid.

In Gurney street, from Fayerweather street, west, to Huron avenue, 638 feet of 6-inch pipe have been laid.

In Huron avenue, to connect Vassal lane, 73 feet of 8-inch pipe have been laid.

In Locust court, north, an extension of 56 feet of 2-inch pipe has been made.

In Magoun street to Whittemore avenue an extension of 118 feet of 6-inch pipe was laid.

At Nile's driveway, from Concord avenue, 3 feet of 4-inch pipe have been laid.

In Reservoir street, a renewal of 740 feet of 8-inch pipe has been made from Huron avenue, south, to within 150 feet of Highland street. A 1½-inch galvanized pipe has supplied this street since 1882.

In Rice park, from Rice street, south, 55 feet of 1¼-inch and 67 feet of 1-inch pipe were laid.

In Rindgefield street, from Hollis street, east, 304 feet of 4-inch pipe have been laid.

In Rogers street, from First street, east, 236 feet of 6-inch pipe have been laid.

In Story street, from Brattle street to Mt. Auburn street, 470 feet of 6-inch pipe have been laid. The old 4-inch pipe has been removed and the supplies connected to the new main.

In Whittemore avenue, from Magoun street, west, 93 feet of 6-inch pipe were laid.

SUBWAY

The expense of the work done during the year on the changes in our pipes for the accommodation of the subway construction has been about the same as last year.

The following account will give some idea of the work:—

In Austin street, at the corner of Columbia street, a Corey hydrant was set.

In Boylston street, from the South street main to the power house, 582 feet of 6-inch pipe have been laid and 6-inch gates located at South street and at the power house where the new main is connected to the Boylston street main.

In Brattle square, the old drinking fountain has been removed, and, in place of the 1½-inch pipe which temporarily has supplied the buildings on the west side of the square and across to the east side, 245 feet of 2-inch pipe have been laid up the west side across to the east side and around to Mt. Auburn street. The supply pipes have been connected to the new 2-inch main.

In Brattle street, at the Abbott building, a new supply has been laid across the subway from the supply on the north side of the street.

In Central square, a portion of the old 12-inch main on the south side of the street has been abandoned and 108 feet of new 12-inch pipe laid to offset around the subway construction and the 40-inch Metropolitan pipe. The new 12-inch main on the north side, at Prospect street, has been connected to the south side main by 67 feet of new 8-inch pipe. New 6-inch and 8-inch gates have been set on each side of the offset.

In Church street, from Brattle street to Massachusetts avenue, 753 feet of 10-inch pipe have been laid and 10-inch gates set at Brattle street and at Massachusetts avenue.

In Dunster street and in Harvard square at Dunster street, the old pipes have been removed.

In Douglass street a flush hydrant has been set.

In Eliot square, 232 feet of 8-inch pipe have been laid from Mt. Auburn street to Bennett street, with a cross connection of 65 feet of 6-inch pipe to Winthrop street; this pipe is to be extended to supply Murray street and also Bennett street.

Six-inch gates have been set on the north and south lines at Winthrop street on the branches from the crossover.

In Essex street, near Massachusetts avenue, a Chapman hydrant has been set; this formerly was located in Massachusetts avenue at Essex street.

In Harvard square, the Co-operative Society's and the College House supplies have been renewed and connected to the new 20-inch main in the new location.

At Holyoke street in Harvard square, 37 feet of 10-inch pipe have been laid around the entrance to the subway.

In Lafayette square, from Columbia street to Douglass street, the 6-inch main that supplied the north side of the street has been removed and a 12-inch line laid.

This pipe has been connected on the south side of Main street to the crossover at Columbia street and is located on the south side of the subway in a channel provided for it by the subway engineer

to near Douglass street, where it crosses the subway to the north side of the street and there joins the 12-inch main.

This location was not the one desired by the Water Board but was the result of a decision of the Railroad Commissioners.

The supplies for the property on the north side of Massachusetts avenue at this point are carried across the subway in channels constructed for this purpose by the subway engineer and are laid of 1¼-inch lead pipe.

In the south side of Main street, from Portland street to Carleton street, 1793 feet of 1-inch pipe have been laid; this pipe was removed from the north side of Main street when the new main was laid last year; before relaying it had been thoroughly cleaned.

In connection with this extension five 12-inch gates have been set on the lines of Portland street, east; at the railroad crossing, west and east; at Ames street, east; and at Carleton street, west.

Cross connections have been made between the 12-inch main on the north and south sides of Main street, as follows: At Portland street, 64 feet of 12-inch pipe; at Albany street, 60 feet of 8-inch pipe; and at Ames street, 52 feet of 10-inch pipe.

The hydrants have been connected to the new main and Corey hydrants set at the railroad crossing, west, and at Ames street, west.

At Portland street, the hydrant has been reset.

Beginning on Massachusetts avenue at Inman street, a 12-inch pipe was laid from Pleasant street along the south side of the avenue to connect Inman street, temporarily.

This location had been supplied by a 16-inch main on the north side of the street, which was removed after the temporary connection was made; the 8-inch from Pleasant street to Prospect street and the 6-inch from Prospect to Columbia street were also removed.

The final arrangement of main pipe on the north side of Massachusetts avenue, from Inman street to Columbia street, resulted in a 12-inch line that extends throughout this distance with offsets at Prospect and Douglass streets and with a long right-angle turnout into Lafayette square as previously described.

The house supplies have been connected all along the line and in Lafayette square lead pipe was used for six supplies.

On the south side of Massachusetts avenue, from Pleasant street to Central square, the 12-inch pipe has not been disturbed. From Central square to Pearl street 378 feet of 12-inch pipe have been laid three feet out from the curb, the old 12-inch pipe having been removed.

The supplies have been connected to the new main and where necessary, lead pipe has been used.

At Brookline street we were required to offset the 12-inch pipe around the sewer siphon, 50 feet of pipe having been used.

In Massachusetts avenue, at Bay street, the old supplies have been shut off and where required they have been renewed.

From Remington street, west, many of the supplies, which early in the construction work were offset for its accommodation, still require straightening, and this work will be cared for so soon as the condition of the ground will permit.

In Quincy square, the 8-inch main on the north side of the street is capped. The new 8-inch main when the weather permits will be extended from the 8-inch at Quincy street around to the 8-inch in Harvard square.

The large supplies on the north side of Massachusetts avenue near Prospect and Temple streets, laid for temporary use, have been abandoned, as the cost of labor attending the reclaiming of the stock would not warrant the expenditure.

In Murray street, at Eliot square, the 6-inch main has been offset and a new gate placed at the pipe which connects Eliot street.

In Norfolk street, 73 feet from Massachusetts avenue, a Corey hydrant has been set; in Austin street, the main has been capped temporarily pending the changes on the Metropolitan main and the Gas Company's main.

In Plympton street, a Corey hydrant has been set.

A new 8-inch main has been laid in Palmer street, from Church street to the line of Brattle street where it is capped; 334 feet of pipe were used. Near Brattle street a Corey hydrant was set and at Church street an 8-inch gate located.

In Winthrop street, 25 feet of 6-inch pipe have been laid with a 6-inch gate on the line at Eliot square.

The department responded to care for 133 leaks caused by the subway work during the year.

MAIN PIPE LAID

Number of Gates and Fire Hydrants

	PIPE		Gates	Hydrants
	Length Feet	Size Inches	Size Inches	Kind
Ames Street, from Massachusetts Avenue, south....	484	8	.....	.....
Concord Avenue, at Smith Place, west.....	.....	.....	6	.....
Concord Avenue, from Smith Place, west.....	577	6	.....	.....
Cottage Park Avenue, from Mass. Avenue south....	49	6	.....	.....
Cottage Park Avenue, at Mass. Avenue, south.....	.....	.....	6	.....
Cottage Park Avenue, near Mass. Avenue, south....	7½	6	.....	Corey
Edmunds Street, from Massachusetts Avenue, west..	304	4	.....	.....
Edmunds Street, at Massachusetts Avenue, west....	.....	.....	4	.....
Edmunds Street (blow off).....	3½	1½	.....	.....
First Street, at Rogers Street (blow off).....	3	1½	.....	.....
First Street, at Rogers Street.....	2	12	.....	.....
Francis Avenue, from Bryant Street, north.....	150	6	.....	.....
Francis Avenue, at Bryant Street, north.....	.....	.....	6	.....
Francis Avenue (blow off).....	3	1½	.....	.....
Franklin Street, from Lansdowne Street, west.....	223	6	.....	.....
Franklin Street, at Lansdowne Street, west.....	.....	.....	6	.....
Fresh Pond Parkway, west side.....	590	6	.....	.....
Fresh Pond Parkway, at Brattle Street, north.....	.....	.....	6	.....
Fresh Pond Parkway, at Larch Road, east.....	.....	.....	6	.....
Gurney Street, from Fayerweather St. to Huron Av.	638	6	.....	.....
Gurney Street, at Fayerweather Street, west.....	.....	.....	6	.....
Gurney Street, at Huron Avenue, south.....	.....	.....	6	.....
Gurney Street, 256 feet from Huron Avenue.....	6	6	.....	Corey
Huron Avenue, to corner of Vassal Lane.....	2	6	.....	.....
Huron Avenue, at Vassal Lane, west.....	.....	.....	6	.....
Huron Avenue, from Vassal Lane, west.....	73	8	.....	.....
Locust Court (extension north).....	56	2	.....	.....
Magoun Street, from Whittemore Avenue.....	118	6	.....	.....
Magoun Street, at Whittemore Avenue, north.....	.....	.....	6	.....
Magoun Street, near Whittemore Avenue.....	6½	6	.....	Corey
Nile's Driveway, from Concord Avenue.....	3	4	4	.....
Pearl Street, corner of Erie Street.....	.....	.....	.....	Perkins
Putnam Avenue, corner of Flagg Street.....	.....	.....	.....	Boston
Rice Park, from Rice Street, south.....	55	1¼	.....	.....
Rice Park, extending from above.....	67½	1	.....	.....
Rindgefield Street, at Hollis Street.....	.....	.....	4	.....
Rindgefield Street, from Hollis Street.....	304	4	.....	.....
Rogers Street, from First Street, east.....	236	6	.....	.....
Rogers Street, at First Street, east (blow off).....	3	1½	6	.....
Story Street, from Brattle Street to Mt. Auburn St..	470	4	.....	.....
Story Street, at Mt. Auburn Street, east.....	.....	.....	6	.....
Surrey Street, from Putnam Avenue, west.....	111	6	.....	.....
Surrey Street, at Putnam Avenue, west.....	.....	.....	6	.....
Whittemore Avenue, from Magoun Street, west.....	93	6	.....	.....

MAIN PIPE LAID

Number of Gates and Fire Hydrants in Connection with Subway Construction

	PIPE		Gates	Hydrants
	Length Feet	Size Inches	Size Inches	Kind
Albany Street, at Main Street, south side	.....	.....	8	.....
Austin Street, at Columbia Street	6½	6	.....	Corey
Boylston Street, from South Street to Power Station	582	6	.....	.....
Boylston Street, at South Street	.....	.....	6	.....
Boylston Street, at Power Station	.....	.....	6	.....
Central Square, south side	108	12	.....	.....
Central Square, south side, south of 12-inch	.....	.....	6	.....
Central Square, south side, north of 12-inch	.....	.....	8	.....
Central Sq. cross connection from Prospect St. south	67	8	.....	.....
Church Street, from Brattle Street to Mass. Avenue	753	10	.....	.....
Church Street, at Brattle Street, east	.....	.....	10	.....
Church Street, at Massachusetts Avenue, west	.....	.....	10	.....
Douglass Street	.....	.....	.....	Flush
Douglass Street, from Massachusetts Avenue	20	6	6	.....
Eliot Square, from Mt. Auburn St. to Bennett St.	232	8	.....	.....
Eliot Square, cross connection to Winthrop Street	65	6	.....	.....
Eliot Square, on branch at Winthrop Street, north	.....	.....	6	.....
Eliot Square, on branch at Winthrop Street, south	.....	.....	6	.....
Essex Street, near Massachusetts Avenue	.....	.....	.....	Chapman
Main Street, south side, from Portland Street to Carleton Street	1,793	12	.....	.....
Main Street, at Portland Street, east	.....	.....	12	.....
Main Street, at railroad crossing, west	.....	.....	12	.....
Main Street, at railroad crossing, east	.....	.....	12	.....
Main Street, at Ames Street, east	.....	.....	12	.....
Main Street, at Carlton Street, west	.....	.....	12	.....
Main Street, at Portland Street (cross-over)	64	12	.....	.....
Main Street, at Albany Street, east (cross-over)	60	8	.....	.....
Main Street, at Ames Street (cross-over)	52	10	.....	.....
Main Street, on Ames Street (cross-over)	.....	.....	10	.....
Main Street, at railroad crossing, west	.....	.....	.....	Corey
Main Street, at Ames Street, west	.....	.....	.....	Corey
Massachusetts Ave., from Inman St. to Prospect St.	617	12	.....	.....
Massachusetts Avenue, at Inman Street, east	.....	.....	.....	O. Boston
Massachusetts Avenue, at Temple Street, west	.....	.....	.....	Corey
Massachusetts Avenue, at Prospect Street, west	.....	.....	12	.....
Massachusetts Avenue, at Prospect Street, east	.....	.....	12	.....
Massachusetts Avenue, at Essex Street, east	.....	.....	.....	Corey
Massachusetts Avenue, at Lafayette Sq., south side	.....	.....	.....	Chapman
Massachusetts Ave., from Prospect St. to Norfolk St.	617	12	.....	.....
Massachusetts Avenue, at Norfolk Street, east	.....	.....	12	.....
Massachusetts Ave., from Norfolk St. to Douglass St.	310	12	.....	.....
Massachusetts Avenue, from Douglass Street to Columbia Street (Lafayette Square)	490	12	.....	.....
Massachusetts Avenue, at Columbia Street, at cross connection	.....	.....	12	.....
Massachusetts Avenue, south side, Central Square to Pearl Street	378	12	.....	.....
Massachusetts Avenue, at Brookline Street (off-set)	50	12	.....	.....
Massachusetts Avenue, at Holyoke Street, west	37	10	.....	.....
Murray Street, at Eliot Square	22	6	.....	.....
Murray Street, at Eliot Street	.....	.....	6	.....
Norfolk Street, 73 feet from Massachusetts Avenue	6	6	.....	Corey
Palmer Street, from Church Street to Brattle Street	334	8	.....	.....
Palmer Street, near Brattle Street	7	6	.....	Corey
Palmer Street, at Church Street	.....	.....	8	.....
Plympton Street	16	6	.....	Corey
Winthrop Street, from Eliot Square	25	6	.....	.....
Winthrop Street, at Eliot Square	.....	.....	6	.....

SUPPLIES

There have been six hundred fifteen (615) supplies laid during the year, as follows:—

One hundred eighty-four (184) in locations formerly unsupplied.

Three hundred fifty-two (352) renewed on application and because of leakage.

Thirty (30) renewed in connection with the renewal of main pipes.

Forty-nine (49) renewed in streets which were resurfaced.

One hundred seventy-five (175) of above new supplies were laid of galvanized wrought iron pipe in sizes from ¾-inch to 2-inch, and nine (9) were of cast iron pipe, as follows:—

6-inch for Cambridge Trust Company, Lansdowne street.
4-inch for Climax Paper Box Company, Cottage Park avenue.
6-inch for Columbia Jewelry Company, Camp street.
6-inch for J. P. Eustis Manufacturing Company, Ames street.
4-inch for C. F. Hathaway & Son, Richdale avenue.
4-inch for Liquid Carbonic Company, 140 Broadway.
4-inch for Newhall & Blevins, Remington street.
4-inch for William Thairwell, Tudor street.
6-inch for William S. Youngman, Amherst street.

One hundred and thirty-one (131) service boxes have been set on supplies not previously furnished, or to replace those broken or otherwise needing repairs.

The annual inspection of service boxes has been made, and where necessary, as discovered by inspectors or reported by police, they have been raised or lowered, as conditions required, to conform to sidewalk grades.

There have been fifteen thousand six hundred seventy-six (15,676) supplies laid to date, March 31, 1911.

The Water Board furnishes water for fire protection free of cost to its customers having a local plant, the owner being obliged to make application in writing agreeing to comply with the rules and regulations governing the introduction and use of such supplies and paying for the installation of supply pipes, gates, etc.

Following is the list of manufactories, etc., which receive fire protection from the Cambridge Water Works:—

Allen & Endicott Building Co.	Osborn Street	6-in.
American Rubber Co.	Binney Street	Two 6-in.
American Circular Loom Co.	Clarendon Avenue	6-in.
American Net and Twine Co.	Third Street	Two 6-in.
American Net and Twine Co.	Third Street	8-in.
American Vulcanized Fibre Co.	Tannery Street	2-in.
Barber Asphalt Paving Co.	First Street	6-in.
Bay State Metal Works.	Harvard Street	6-in.
Bell Confectionery Co., J. S.	Sixth Street	6-in.
Blacker & Shepard Co.	Osborne Street	2-in.
Blake & Knowles Steam Pump Wrks.	Binney Street	8-in.
Blake & Knowles Steam Pump Wrks.	Third Street	4-in.
Blanchard Machine Co.	State Street	6-in.
Boston Book Binding Co.	Mt. Auburn Street	6-in.
Boston Book Binding Co.	Mt. Auburn Street	4-in.
Boston Confectionery Co.	Hampshire Street	4-in.
Boston Confectionery Co.	Hampshire Street	6-in.
Boston Confectionery Co.	Main Street	6-in.
Boston Confectionery Co.	State Street	6-in.
Boston Elevated Railway Co.	Baldwin Street	2-in.
Boston Elevated Railway Co.	Baldwin Street	4-in.
Boston Elevated Railway Co.	Cambridge Street	Two 2-in.
Boston Elevated Railway Co.	Pelham Street	Three 4-in.
Boston Elevated Railway Co.	Massachusetts Avenue	4-in.
Boston Elevated Railway Co.	Mt. Auburn Street	4-in.
Boston Elevated Railway Co.	Mt. Auburn Street	2-in.
Boston Elevated Railway Co.	Murray Street	4-in.
Boston Elevated Railway Co.	River Street	4-in.
Boston & Maine Railroad.	Bridge Street	4-in.
Boston & Maine Railroad.	Bridge Street	6-in.
Boston & Maine Railroad.	East Street	6-in.
Boston & Maine Railroad.	Prison Point Street	4-in.
Boston Woven Hose & Rubber Co.	Portland Street	Two 8-in.
Cambridge Gas Light Co.	Third Street	6-in.
Cambridge Electric Light Co.	Western Avenue	6-in.
Cambridge Mutual Fire Ins. Co.	Massachusetts Avenue	2-in.
Cambridge Trust Co.	Lansdowne Street	6-in.
Climax Paper Box Co.	Cottage Park Avenue	4-in.
Carter Ink Co.	First Street	4-in.
Carter Ink Co.	Athenæum Street	6-in.
Charles River Basin Commission.	Bridge Street	4-in.
Chelmsford Foundry Co.	Portland Street	2-in.
Columbia Jewelry Co.	Camp Street	6-in.
Commonwealth Custom Laundry.	348 Franklin Street	4-in.
Davenport, A. H.	Cambridge Street	6-in.
Davenport, A. H.	Otis Street	6-in.
Dover Stamping & Mfg. Co.	Pleasant Street	6-in.
Dow, John C., Co.	220 Portland Street	2-in.
E. & R. Laundry Co.	Massachusetts Avenue	6-in.
Eustis, J. P., Mfg. Co.	Ames Street	6-in.
Ginn & Co.	First Street	Two 6-in.
Ginn & Co.	Athenæum Street	8-in.
Goepper Brothers	Ninth Street	1½-in.
Gray, Peter, & Son.	Third Street	6-in.
Harvard University	Harvard Union Club, Harvard Street	4-in.
Harvard University	Langdell Hall	4-in.

Harvard University	Memorial Hall, Cambridge Street	4-in.
Harvard University	Observatory, Concord Avenue	6-in.
Harvard University	Semitic Museum, Divinity Avenue	4-in.
Hasty Pudding Club	Holyoke Street	4-in.
Hathaway, C. H., & Son	Richdale Avenue	4-in.
Hews Co., A. H	Crescent Avenue	Two 4-in.
Holy Ghost Hospital for Incurables	Cambridge Street and Hovey Avenue	3-in.
Houghton, Mifflin & Co	Albro Street and Blackstone Street	6-in.
Houghton, Mifflin & Co	River Street	6-in.
Irving & Casson	Otis Street	6-in.
Irving & Casson	Thorndike Street	Two 6-in.
Irving & Casson	Thorndike Street	2-in.
Ivers & Pond Piano Co	Albany Street	4-in.
Ivers & Pond Piano Co	Albany Street	6-in.
Keeler & Co	Thorndike Street	1-in.
Kendall & Sons, Edward	Main Street	2-in.
Lamb & Ritchie	Albany Street	6-in.
Lamb & Ritchie	Albany Street	6-in.
Lever Brothers	Broadway	6-in.
Lever Brothers	Broadway	8-in.
Little, Brown & Co	Putnam Avenue	6-in.
Luke, E. H., Estate of	Main Street	2-in.
Mason & Hamlin Co	Broadway	Two 6-in.
McLean, Isaac	Mt. Auburn Street	4-in.
McLean, Isaac	Massachusetts Avenue	4-in.
Metropolitan Storage Warehouse Co.	Massachusetts Avenue	6-in.
Middlesex County, House of Cor'n	Second and Spring Streets	6-in.
Monk's Laundry	Norfolk Street	6-in.
National Biscuit Co	Franklin Street	4-in.
National Biscuit Co	Franklin Street	6-in.
National Biscuit Co	Green Street	8-in.
National Casket Co	First Street	6-in.
National Linseed Oil Co	Fifth Street	6-in.
Nichols, W. L	Ames Street	6-in.
North Packing and Provision Co	Winsor Street	6-in.
O'Brien, Rev. John	Seventh Street	4-in.
Page Box Co., George G	Hampshire Street	Two 6-in.
Petterson, Oscar G	183 Main Street	4-in.
Pierce, Trs. of Estate of Thomas	Broadway	6-in.
Pierce, Trs. of Estate of Thomas	Broadway	4-in.
Pi Eta Club	Winthrop Square	2-in.
Porter, Henry S	Kinnaird Street	4-in.
Porter, Henry S	Kinnaird Street	6-in.
Reardon & Sons, Corp., John	Waverly Street	4-in.
Revere Sugar Refinery	Water Street	6-in.
Reversible Collar Co	Putnam Avenue	6-in.
Riverside Boiler Works	Harvard Street	4-in.
Russell, Estate of Joseph G	Pacific Street	6-in.
Russell, Lucy J	29 Elm Street	1½-in.
Sawyer & Son, Howard M	Thorndike Street	4-in.
Sawyer & Son, Howard M	Thorndike Street	6-in.
Sawyer & Son, Howard M	Second Street	6-in.
Seaverns Piano Action Co., Geo. W.	Sidney Street	8-in.
Seelye Manufacturing Co	First Street	4-in.
Sherburne, Estate of Reuben	Third Street	6-in.
Simplex Electrical Co	Auburn Street	3-in.

Simplex Electrical Co	Auburn Street	6-in.
Simplex Electrical Co	Franklin Street	8-in.
Simplex Electrical Co	Franklin Street	6-in.
Simplex Electrical Co	Pilgrim Street	4 in.
Snow, M. Josephine	Massachusetts Avenue and Lee Street	Two 2-in.
Speare's Sons & Co., Alden	Rogers Street	4-in.
Speare's Sons & Co., Alden	Sixth Street	4-in.
Standard Oil Co	Potter Street	6-in.
Standard Turning Works	Main Street	4-in.
Swan, Daniel A	61 Broadway	2-in.
Thairwell, William	Tudor Street	4-in.
Thayer & Co., Henry	Broadway	6-in.
Tower & Son, Sylvester	Broadway	4-in.
University Associates	Bow Street, Garage	6-in.
University Associates	Linden Street	4-in.
University Associates	Massachusetts Avenue	6-in.
University Press	Nutting Place	6-in.
Ward, Corby Co	Albany Street	6-in.
Warren Brothers & Co	Potter Street	6-in.
Wetmore, Charles D	Claverly Hall, on Mt. Auburn Street	4-in.
Whittemore Brothers & Co	Albany Street	4-in.
Youngman, William S	Amherst Street	6-in.

SUPPLIES LAID DURING PAST TEN YEARS

YEAR	New Supplies	SUPPLIES RENEWED			Total Supplies Laid	Supplies furnished with sidewalk service boxes
		Application and Leakage	Attending Main Pipe Renewal	Total Supplies Renewed		
1901	201	136	155	291	492	129
1902	161	110	167	277	438	51
1903	123	174	163	337	460	42
1904	111	190	87	277	388	39
1905	130	176	117	293	423	177
1906	129	230	15	245	374	113
1907	135	197	18	215	350	19
1908	110	267	24	291	401	*116
1909	29	28	...	28	57	†12
1910	156	332	56	388	544	‡144
1911	184	352	79	431	615	‡131

* For year ending November 30, 1908.
† For four months ending March 31, 1909.
‡ For year ending March 31.

FOUNTAINS

There are twenty-eight fountains in use; five of these are ice water drinking fountains. From Central square the ice water fountain has been temporarily removed to accommodate the subway construction.

ICE WATER DRINKING FOUNTAINS

	LOCATION							
	Cambridge Field	Cambridge Street at Third Street	Central Square	Harvard Square	Massachusetts Avenue at Blake Street	Massachusetts Avenue at Cameron Street	Total Expense	Average cost per day per fountain
1904	.....	$145 50	$112 50	$105 60	$96 75	.....	$460 35	$1 20
1905	.....	125 55	129 90	103 43	155 30	.....	514 28	94
1906	.....	180 95	175 35	166 69	157 25	$115 40	795 64	1 57
1907	$102 37	110 50	127 13	110 50	102 74	102 25	655 49	1 09
1908	89 49	127 00	134 38	127 87	111 50	115 75	705 99	1 04
1909	121 05	185 68	124 50	122 70	141 60	127 95	823 48	1 15
1910	134 10	149 70	.....	134 55	140 25	154 05	712 65	1 24

The excessive cost in 1906 was due to the increased prices of ice, which were twenty-five (25) cents, afterwards forty (40) cents, per one hundred (100) pounds; whereas in previous years, as well as in the following years, the prices have been twelve and one-half (12½) cents and fifteen (15) cents per one hundred (100) pounds

STREET WATERING STANDPIPES

There are seventy-two (72) street watering standpipes now in use, no additions having been made during the past year.

All of the standpipes have been examined, fitted with new valves where necessary and otherwise repaired, the expense being charged to the Street Watering Department, as in previous years.

GATES

Fifty (50) gates have been set during the past year.

Sixteen (16) have been set on main pipe, extensions, etc.

Twenty-three (23) have been set on main pipe, extensions, etc., in connection with subway construction.

Nine (9) have been set on new supplies.

Two (2) have been set in place of old ones removed.

The sizes and locations of new gates set on extensions and renewals of main pipe will be found elsewhere in this report.

The gates in all parts of the City have been carefully inspected and repaired.

BOXES

One hundred forty-seven (147) boxes have been placed during the past year.

Twenty-nine (29) iron boxes have been placed on new supplies.

Twenty-nine (29) iron boxes have been set to replace old boxes removed, and

Sixteen (16) iron boxes have been placed on new mains.

Twenty-two (22) boxes have been placed on mains laid in connection with subway construction.

One (1) small wooden box has been placed on supply.

Nine (9) small wooden boxes have been set to replace old boxes removed, and

Five (5) small wooden boxes have been placed on new mains.

Fifteen (15) concrete boxes have been placed for meters.

Twenty-one (21) wooden (special) boxes have been placed for meters.

HYDRANTS

Seventeen (17) hydrants have been set this year; thirteen (13) in new locations and four (4) to replace those broken by teams or needing repairs.

The kinds and locations of those set will be found elsewhere in this report.

Hydrants were removed from the locations following:—

Massachusetts avenue at Essex street (Chapman).

Massachusetts avenue (Lafayette square) (Chapman).

Putnam avenue at Flagg street (Boston).

The usual annual inspection has been made and seven (7) hydrants have been repaired without removing from their locations.

The total number of hydrants in use at this date is one thousand eighty-five (1085), classified as follows:—

Boston	153
Chapman	595
Coffin	42
Corey	29
Flush	83
Holyoke	91
Perkins	92
	1085

METERS

During the year there have been 432 meters set on premises which have not been previously equipped, and 14 on premises formerly supplied but where the meter had been temporarily removed for reason of vacancy, etc.

The table following will show the number set during this year:—

	3 Inch	2 Inch	1½ Inch	1¼ Inch	1 Inch	¾ Inch	⅝ Inch	Total
Crest	.....	1	1	.....	.....	.....	.....	2
Crown	.....	1	.....	.....	.....	.....	.....	1
Hersey	.....	.....	5	.....	1	4	4	14
Keystone	.....	.....	.....	.....	13	3	1	17
Nash	.....	.....	.....	.....	1	.....	.....	1
Torrent	.....	2	.....	.....	.....	.....	.....	2
Trident	.....	.....	.....	.....	.....	9	15	24
Union Rotary	.....	1	1	.....	.....	.....	.....	2
Watch Dog	.....	.....	.....	.....	.....	2	1	3
Worthington	1	2	.....	14	1	81	281	380
	1	7	7	14	16	99	302	446

This is the first year in which meters of size 1¼-inch have been installed in this City.

There are forty-seven meters in public buildings for which the department receives no income. These meters were set to determine the amount of water used by the city in schoolhouses, engine houses,

police stations, etc. The kinds, sizes and number are given as follows:—

	2 Inch	1½ Inch	1 Inch	¾ Inch	⅝ Inch	Total
Crown	1	1	2	1	1	6
Hersey	.....	.....	7	5	.....	12
Keystone	.....	.....	1	.....	.....	1
Trident	.....	.....	9	1	3	13
Thomson	.....	1	.....	1	.....	2
Torrent	1	.....	.....	.....	.....	1
Union Rotary	2	.....	.....	.....	.....	2
Worthington	.....	1	7	.....	2	10
	4	3	26	8	6	47

Number of meters installed in the City at date, March 31, 1911, is forty-six hundred eighty-four (4684).

They are located on the supplies of manufactories, houses, churches, etc., etc.

All meters are owned by the City and set at its expense.

	6 Inch	4 Inch	3 Inch	2 Inch	1½ Inch	1¼ Inch	1 Inch	¾ Inch	⅝ Inch	Total
Crest	.....	3	5	14	11	.....	.....	.....	.....	33
Crown	.....	2	.....	5	4	.....	1	14	8	34
Empire	.....	.....	.....	.....	.....	.....	2	.....	.....	2
Gem	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Hersey	1	2	2	30	19	1	113	285	725	1178
Keystone	.....	.....	.....	.....	1	2	34	119	356	512
Lambert	.....	.....	.....	.....	.....	.....	9	25	108	142
Nash	.....	.....	.....	.....	.....	.....	.....	11	.....	11
Thomson	.....	.....	.....	.....	1	.....	.....	4	1	6
Torrent	.....	.....	.....	13	.....	.....	.....	.....	.....	13
Trident	.....	.....	8	6	14	3	93	237	414	775
Union Rot'y	.....	8	10	17	9	1	1	9	6	61
Watch Dog	.....	.....	.....	.....	.....	.....	.....	1	1	2
Worthington	.....	1	7	22	18	17	91	345	1413	1914
	2	16	32	107	77	24	344	1050	3032	4684

TUNNELS UNDER BROAD CANAL.

From what examination we have been able to make the tunnels are in the same condition as last year.

STONY BROOK CONDUIT.

There have been no repairs required on this conduit the past year and I would renew the recommendation of last year that a portion of this line be fenced.

STONY BROOK RESERVOIR.

The water in this basin has been drawn down the past year to grade 66.10 or 13.9 feet below full basin, and all water drawn into Fresh Pond for the past two months has been wholly from this basin (no water in the meantime having been drawn from Hobbs Brook).

The number of cesspools remains the same as last year and the number of loads taken from them has been 1255.

STONY BROOK OVERFLOW, ETC.

	Gallons	Number of days	Rainfall
1910			
April	55,400,000	20	2.32
May	1,800,000	2	1.07
June	.....	.....	4.85
July	.....	.....	2.20
August	.....	.....	1.18
September	.....	.....	2.88
October	.....	.....	1.58
November	.....	.....	4.21
December	.....	.....	2.26
1911			
January	.....	.....	2.82
February	.....	.....	2.97
March	.....	.....	3.44
Total amount wasted	57,200,000	.....	.....
Number of days in which water wasted	.....	22	
Total rainfall	.....	.....	31.78

STONY BROOK OVERFLOW, ETC., FOR THE PAST TEN YEARS

	Gallons	Number of Days	Rainfall
1902	6,539,100,000	182	*44.58
1903	6,437,500,000	222	*45.97
1904	5,726,399,000	171	*41.18
1905	3,148,900,000	140	*38.40
1906	3,510,700,000	170	*39.16
1907	2,415,900,000	147	*42.32
1909	4,345,100,000	234	§48.23
1910	2,531,500,000	137	‡37.83
1911	57,200,000	22	‡31.78

* For years ending November 30.
§ For sixteen months from December 1, 1907, to March 31, 1909.
‡ For years ending March 31.

HOBBS BROOK

From this basin the water has been drawn to a lower point this year than ever before, on December 15, 1910, the height being 158.45 or .60 feet lower than last year, and 12.55 feet below the crest of overflow. On December 15, 1910, the gates at the Lincoln street dam were opened and the water from that basin drawn into the lower basin.

The gates were closed on March 27, 1911, and the basin is now nearly filled.

The standing grass has been sold as usual.

The steps and piazza of the keeper's house will need some repairs this year.

Overflow and number of days, by year, in which the water overflowed at Stony Brook Reservoir, January 1 to December 1.

	Overflow Gallons	Number of days when water overflowed at Stony Brook Dam		
		Total	Hobbs Brook	
			Water at Elevation 181 or over	Water below crest
1905	3,219,000,000	153	112	41
1906	3,474,000,000	158	121	37
1907	2,866,000,000	179	70	109
1908	2,927,000,000	154	131	23
1909	1,765,000,000	118	0	118
1910	57,200,000	22	0	22
Total	14,308,200,000	784	434	350
Average for six years	2,384,700,000	130		

Number of days, by months, in which water overflowed at Stony Brook when elevation of water at Hobbs Brook was 181 or over

	1905		1906		1907		1908		1909	
	No. of Days	Rainfall	No. of Days	Rainfall	No. of Days	Rainfall	No. of Days	Rainfall	No. of Days	Rainfall
January ...	.....	5.33	.....	2.56	.....	3.06	9	3.53	.....	4.21
February ..	.....	1.62	7	2.83	.....	1.98	29	4.83	.....	5.14
March	20	3.46	31	6.16	.....	2.02	31	3.66	.....	3.95
April	30	2.48	30	2.39	25	3.49	30	1.48	.....	4.
May	31	1.59	23	4.52	31	3.55	27	4.28	.....	1.78
June	30	5.38	21	2.18	14	2.52	5	1.25	.....	3.08
July	1	1.89	9	4.87	.....	1.64	.....	3.56	.....	1.61
August	.....	3.11	.....	2.33	.....	1.58	.....	3.97	.....	2.95
September .	.....	7.09	.....	1.59	.....	8.36	.....	.87	.....	5.12
October ...	.....	1.24	.....	2.86	.....	3.52	.....	2.61	.....	1.20
November ..	.....	2.27	.....	2.91	.....	6.09	.....	1.05	.....	3.44
December ..	.....	3.96	.....	4.51	.....	3.84	.....	2.50	.....	4.20
	112	39.42	121	39.71	70	41.65	131	33.59	.....	40.47

The water in Hobbs Brook Basin did not reach crest elev ation, i.e., 181, during the year 1910.

HOBBS BROOK								STONY BROOK			
LINCOLN STREET BASIN No. 1				WINTER STREET BASIN No. 2							
	Lowest Elevation During Month	Highest Elevation During Month	Monthly Rainfall		Lowest Elevation During Month	Highest Elevation During Month	REMARKS		Lowest Elevation During Month	Highest Elevation During Month	Monthly Rainfall
1910				1910				1910			
April 1..	.....	180.70	.....	April 1..	177.75	.....		April 20..	80.84	.....	.....
April 30..	180.65	.....	2.45	April 30..	.....	178.65		April 28..	.....	81.16	2.32
May 1..	.....	180.65	.....	May 11..	.....	178.80		May 1..	.....	81.06	.....
May 26..	180.50	.....	1.00	May 31..	178.50	.....	May 23—Opened gate.	May 23..	78.46	.....	1.07
June 14..	.....	180.80	.....	June 22..	.....	178.65	June 10—Closed gate.	June 16..	.....	80.64	.....
June 30..	180.50	.....	3.40	June 30..	178.20	.....	June 24—Opened gate.	June 29..	78.21	.....	4.85
July 1..	.....	180.50	.....	July 1..	.....	178.15		July 1..	78.33	.....	.....
July 31..	180.00	.....	1.50	July 27..	175.00	.....		July 18..	.....	79.10	2.20
Aug. 1..	.....	180.00	.....	Aug. 1..	.....	175.55		Aug. 13..	.....	78.96	.....
Aug. 31..	179.65	.....	2.10	Aug. 31..	173.25	.....		Aug. 24..	78.52	.....	1.18
Sept. 7..	.....	179.75	.....	Sept. 1..	.....	173.15		Sept. 7..	.....	79.16	.....
Sept. 30..	179.30	.....	2.65	Sept. 29..	171.20	.....	Sept. 28—Closed gate.	Sept. 30..	77.66	.....	2.88
Oct. 1..	.....	179.30	.....	Oct. 1..	.....	171.25	Oct. 3—Opened gate.	Oct. 1..	.....	77.23	.....
Oct. 31..	179 15	.....	1.31	Oct. 31..	169.35	.....	Oct. 30—Closed gate.	Oct. 31..	75.73	.....	1.58
Nov. 1..	179.15	.....	.....	Nov. 6..	.....	169.60	Nov. 6—Opened gate.	Nov. 1..	.....	75.46	.....
Nov. 30..	.....	179.75	3.85	Nov. 30..	168.80	.....	Nov. 18—Closed gate.	Nov. 28..	70.56	.....	4.21
Nov. ..	.....	.....	.....	Dec. 15..	168.45	.....	Nov. 27—Opened gate.	Dec. 1..	.....	70.40	.....
Dec. 14..	.....	179.85	.....	Dec. 30..	.....	170.00	Nov. 29—Closed gate.	Dec. 21..	66.16	.....	2.26
Dec. 23..	169.65	....	1.07				Dec. 6—Opened gate.				
							Dec. 7—Closed gate.				
							Dec. 10—Opened gate.				
							Dec. 18—Closed gate.				
							Dec. 19—Opened gate.				
							Dec. 24—Closed gate.				
							Dec. 30—Opened gate.				
1911				1911				1911			
Jan. 1..	169.95	.....	.....	Jan. 1..	169.90	.....	Jan. 2—Closed gate.	Jan. 21.	66.50	.....	.....
Jan. 16..	.....	170.55	2.84	Jan. 16..	.....	170.50	Jan. 15—Opened gate.	Jan. 31..	.....	68.02	2.82
							Jan. 28—Closed gate.	Feb. 8..	.....	70.67	.....
Feb. 1..	170.50	.....	.....	Feb. 1..	170.45	.....		Feb. 26..	68.04	.....	2.97
Feb. 28..	.....	171.35	2.89	Feb. 28..	.....	171.35		March 12..	69.56	.....	.....
Mar. 1..	171.40	.....	.....	Mar. 1..	171.35	.....		March 31..	.....	79.27	3.44
Mar. 31..	.....	174.25	3.20	Mar. 31..	.....	173.05					31.78
			28.26								

On December 15, 1910, the gate in the upper basin (Lincoln street) was opened for the first time since the construction of the basins; it was closed again March 27th.

The "remarks" refer to the gate at the lower basin (Winter street).

NEW SUPPLIES LAID DURING PAST YEAR

	6 Inch	4 Inch	3 Inch	2 Inch	1½ Inch	1¼ Inch	1 Inch	¾ Inch	Total
Length in feet of cast iron pipe..	197	128	4	.....	.....	.....	.....	.....	329
Length in feet of galvanized pipe.	.....	11	.....	796	315	162	2,318	2,939½	6,541½
Number of new supplies	4	5	.....	18	11	12	62	72	184
Number of stop and waste valves	.....	2	1	14	7	6	63	77	170
Number of screw cocks	.....	.....	.....	3	6	14	64	72	159
Number of sidewalk cocks	.....	.....	.....	.....	.....	4	65	71	140
Number of service boxes	.....	.....	.....	.....	.....	.....	.....	.....	133
Number of gates ..	4	5	.....	.....	.....	.....	.....	.....	9
Number of gate boxes	.....	.....	.....	.....	.....	.....	.....	.....	29
Number of wooden gate boxes	.....	.....	.....	.....	.....	.....	.....	.....	1

SUPPLIES, ETC., RENEWED DURING THE PAST YEAR

	6 Inch	4 Inch	2 Inch	1½ Inch	1¼ Inch	1 Inch	¾ Inch	Total
Length of feet of pipe ..								
Number of supplies renewed	21	2	83	44	110	1,389	11,383	13,032
Number of stop and waste valves	.....	.....	3	1	3	39	306	352
Number of screw cocks	.....	.....	18	1	1	15	145	180
Number of sidewalk cocks	.....	.....	.....	.....	3	12	56	71
Number of service boxes	.....	.....	.....	.....	5	18	81	104
Number of gate boxes..	.....	.....	.....	.....	.....	.....	.....	132
Number of small wooden boxes	.....	.....	.....	.....	.....	.....	.....	29
	.....	.....	.....	.....	.....	.....	.....	9

MAIN PIPE, ETC., LAID DURING THE PAST YEAR

	8 Inch	6 Inch	4 Inch	2 Inch	1½ Inch	1¼ Inch	1 Inch	Total
Length in feet of pipe (extension)	557	2,736	608	56	12½	55	67½	4,092
Length in feet of pipe (renewed)	.....	49	470	.....	.....	.....	.....	519
Total length in feet.....	557	2,785	1,078	56	12½	55	67½	4,611
Number of gates	.....	13	3	.....	.....	.....	.....	16
Number of hydrants	.....	.....	.....	.....	.....	.....	.....	5
Number of gate boxes....	.....	.....	.....	.....	16	.....	.....	16
Number of small wooden boxes	.....	.....	.....	.....	5			5
Number of wooden boxes with meters	.....	.....	.....	.....	.....	.....	.....	21
Number of concrete boxes with meters	.....	.....	.....	.....	.....	.....	.....	15
Number of blow-off.....	.....	.....	.....	.....	3	.....	.....	3

MAIN PIPE, ETC., LAID IN CONNECTION WITH SUBWAY CONSTRUCTION

	12 Inch	10 Inch	8 Inch	6 Inch	Total
Length in feet of pipe (extension)	1,857	52	60	647	2,616
Length in feet of pipe (renewals)	2,570	790	633	67	4,060
Total length in feet	4,427	842	693	714	6,676
Number of gates	9	3	3	8	23
Number of hydrants	.....	.....	.....	.....	12
Number of gate boxes	.....	.....	.....	.....	22

COMPARATIVE TRENCHING FOR THE PAST SIX YEARS

	MAIN PIPE				SUPPLIES		TOTAL	
	Extension	Renewals	Subway Changes		New	Renewals	Feet	Miles
			Extensions	Renewals				
1906....	7,443	1,357	.....	.....	4,835	8,716	22,351	4.23
1907....	4,377	1,964	.....	.....	5,433	6,461	18,235	3.45
1908....	2,877	918	.....	.....	5,730	8,361	17,886	3.38
1909....	3,068½	918	.....	.....	6,674½	9,312½	19,973½	3.80
1910....	5,361½	2,952	777	6,071	6,090	11,548	32,799½	6.21
1911....	4,092	519	2,616	4,060	6,541½	13,032	30,860½	5.84

SUMMARY OF STATISTICS

In form recommended by the New England Water Works Association

CAMBRIDGE WATER WORKS

Cambridge, Middlesex County, Massachusetts

GENERAL STATISTICS

Population by census 1910—104,839.

Estimated population March 31, 1911—104,839.

Cambridge Water Works Corporation was chartered in 1852 and organized in 1853.

The works were constructed in 1855—Mr. John Blake, consulting engineer—and came into possession of the City by purchase in 1865, when they were called "Cambridge Water Works."

The original source of supply was Fresh Pond in Cambridge and Belmont, which was enlarged by connection via conduit with Wellington Brook and Spy Pond. The waters of these additional sources were adjudged unfit for domestic use in 1880, and since that time have not been utilized for a supply by Cambridge.

In 1887, Fresh Pond was supplemented by a storage reservoir which had been constructed on Stony Brook located in Weston and Waltham. The waters from this brook are brought to Fresh Pond by a conduit, originally a thirty-inch cast iron pipe, which was laid through Waltham and Watertown to Fresh Pond Reservoir.

This extension of the works was made under the direction of Mr. N. Henry Crafts, as consulting engineer, and our City Engineer, Mr. W. S. Barbour.

The population of the City was about 60,000.

In 1897 an additional provision was made for storing water by the construction of two large reservoirs on Hobbs Brook, which is a tributary of Stony Brook and flows through Lexington and Lincoln.

Consulting engineers, Mr. A. Feeley and Messrs. Rice and Evans, and our City Engineer, Mr. L. M. Hastings, directed the construction of these reservoirs.

The population at this time was about 87,500.

In 1905 and 1906 two sections of the Stony Brook pipe line were rebuilt, the new conduit being made of concrete, sixty-three inches in diameter. Another part was rebuilt in 1908, when a new thirty-inch main of cast iron pipe was laid to replace 1500 feet of the old thirty-inch line.

The consulting engineer for the concrete conduit was Freeman C. Coffin, and our City Engineer, Mr. L. M. Hastings.

The new thirty-inch main was laid under the supervision of the Water Works Superintendent.

The conduit is constructed as follows:—

From Fresh Pond to River street, Waltham, 27,405 feet of 63-inch concrete.

From River street to Stony Brook dam, 1500 feet of 30-inch (new), 6023 feet of 30-inch (old), 4826 feet of 36-inch (old).

Mode of Supply—Gravity from Hobbs Brook and Stony Brook reservoirs to Fresh Pond, pumping from Fresh Pond to Payson Park Reservoir, thence by gravity to consumers.

PUMPING STATISTICS

1. Builders of pumping machinery—One Leavitt built by Groshen High Duty Pumping Company, of 20,000,000 gallons capacity; two Worthingtons, each 5,000,000 gallons capacity; and one Blake of 2,250,000 gallons capacity.

2. Description of fuel used—

   a. Kind—Bituminous.

   b. Brands of coal—"Orenda" and "Beaver."

   c. Price of coal per gross ton delivered from April 1, 1910, to March 31, 1911—"Orenda" coal, $4.01; "Beaver" coal, $4.15.

3. Coal consumed for the year—4,869,625 pounds.

4. Pounds of wood consumed divided by 3 equals equivalent amount of coal—500 pounds.

5. Total equivalent coal consumed for the year for pumping purposes—4,870,125 pounds.

6. Total pumpage for the year without allowance for slip—3,794,689,680 gallons.

7. Average static head against which pump works—157.63.

8. Average dynamic head against which pump works—189.77.

9. Number of gallons pumped per pound of equivalent coal—779.

10. Duty—123,126,243.

Cost of pumping figured on pumping station expenses, viz.: $21,982.16.

11. Per million gallons pumped—$5.79.

12. Per million gallons raised one foot (dynamic) 3.7 cents.

FINANCIAL STATISTICS FOR YEAR ENDING MARCH 31, 1911

Total Maintenance—		
Pumping, general expenses	$11,574 16	$11,574 16
Pumping (building repairs)	1,335 44	1,335 44
Pumping, salaries	9,072 56	9,072 56
General expenses	29,846 65	29,846 65
Supply expenses	3,662 02	
Fresh Pond Reservoir	8,332 06	8,332 06
Payson Park Reservoir	988 28	988 28
Hobbs Brook Reservoir	1,245 91	1,245 91
Stony Brook Reservoir	2,921 66	2,921 66
Meters	4,824 02	
Ice for fountains	712 65	
Playgrounds	106 00	
City Treasurer and City Solicitor	2,500 00	2,500 00
Study of water supply	663 07	
	$90,114 15	
Interest on bonds	137,582 75	
Sinking Fund	120,624 50	
Serial bond paid	12,500 00	
Refunds and abatements	3,180 19	
	$364,001 59	$80,113 39
Construction—		
General	$6,063 26	
Hobbs Brook Conduit	14,926 21	
Subway	21,661 24	
	$42,650 71	

Net Receipts from Water Rates, Etc.—

Water rates, etc	$376,878 95
Miscellaneous	10,351 12
Construction, general	1,207 99
Construction, subway	17,789 42
	$406,227 48

Cost of works to date	$6,533,851 83
Bonded debt at date	$3,247,600 00
Value of sinking fund at date	$1,549,716 94
Average rate of interest	3½ and 4%

STATISTICS OF CONSUMPTION OF WATER

For the Year Extending from April 1, 1910, to March 31, 1911

Estimated total population at date—104,839 (census 1910).
Estimated population on lines of pipe—104,839.
Estimated population supplied—104,839.
Total pumpage for year—3,794,689,680 gallons.
Average daily consumption—10,396,410 gallons.
Gallons per day to each inhabitant—99.16.
Gallons per day to each consumer—99.16.
Gallons per day to each tap—663.

Cost of supplying water per million gallons pumped, figured on total maintenance "operating expenses," $80,113.39—$21.11.

Total cost of supplying water per million gallons pumped, figured on "total maintenance," $364,001.59—$95.94.

STATISTICS RELATING TO DISTRIBUTION SYSTEM

For the Year Extending from April 1, 1910, to March 31, 1911

MAINS

Kind of pipe—cast iron.
Sizes—From two-inch to forty-inch.
Extended during year—4092 feet.
Extended in connection with the subway construction—2616 feet.
Renewed during the year—519 feet.

Renewed in connection with the subway construction—4060 feet.
Total now in use—132.01 miles.
Number of leaks per mile for the year ending March 31, 1911—17.
Length of pipes two and three inches in diameter—Two miles.
Number of hydrants added during year (public)—13.
Number of hydrants (public) now in use—1085.
Number of stop gates added during year—39.
Number of stop gates smaller than four-inch—None.
Range of pressure on mains—55 to 60 pounds.

SERVICES

Kind or pipe—galvanized wrought iron, cast iron, tin-lined and lead-lined.
Sizes—three-fourth-inch to eight-inch.
Extended during the year—6870½ feet.
Number of service taps added during year—
72 of ¾-inch.
62 of 1-inch.
12 of 1¼-inch.
11 of 1½-inch.
18 of 2-inch.
5 of 4-inch.
4 of 6-inch.
184—Total.
Number now in use—15,676.
Average length of service for past year—37 feet.
Average cost of services for the year, sizes from ¾-inch to 2-inch—$20.92.
Number of meters added during the year—432.
Number now in use—4684.
Percentage of services metered—29.

Respectfully submitted,

EDWIN C. BROOKS,
Superintendent.

REPORT OF THE SUPERINTENDENT OF PUBLIC BUILDINGS

CAMBRIDGE, MASSACHUSETTS, April 10, 1911.

Hon. J. Edward Barry, Mayor of the City of Cambridge:—

DEAR SIR:—In accordance with the revised ordinances of this city the Superintendent of Public Buildings hereby submits the annual report of the Building Department covering the period from April 1, 1910, to March 31, 1911.

ADMINISTRATION

The following city buildings are now under the direct supervision of the Superintendent of Public Buildings:—City Hall, Brattle Square Building, Central Square Building, and Police Stations 3 and 4. The needs of these buildings are placed before the City Council without regard for those under the control of other departments. This situation results in the buildings of other departments being neglected for those under the charge of the Superintendent of Public Buildings. To bring about a change so that all public buildings shall receive equal attention, I would recommend that the ordinances be changed, placing the control of all city buildings under the building department.

A comparison of Cambridge with other cities of the Commonwealth, shows that in this city the charge for lighting public buildings is greatly in excess of that in other municipalities. I would recommend that an effort be made to secure a contract from the Cambridge Electric Light Company covering the cost of lighting public buildings for a term of years at a greatly reduced rate.

BRATTLE SQUARE BUILDING

The desire last year on the part of the occupants of the court rooms in this building for better accommodations, led them to petition the General Court to grant authority to the County Commissioners to build a court house for their use in East Cambridge adjoining the county buildings. The Committee on Counties reported favorably upon this matter, but the report of the bill was negatived by the mem-

bers of the Legislature from Cambridge, who opposed the plan on the ground that the building might be repaired, fireproof vaults installed and made satisfactory to the court. To carry out these proposed changes an appropriation of $500 was made by the City Council and work begun to install the fireproof vaults. After the work had been about half completed the Boston Elevated Railway Company secured the vacant lot of land adjoining the court rooms and began to lay tracks across it to enter their car barn in the rear of the city building. The location of these tracks, with the noise from their use by a large number of cars daily, forced us to stop work on the proposed changes, as any further continued use of the building for court purposes became impossible.

Again this year, a petition has been presented to the Legislature to secure a new building for the use of the court and as yet has not been passed upon. An effort is now being made to effect an agreement with the Boston Elevated Railway Company for the sale of the building to them. If this deal goes through it is proposed to build a new city building for the use of the court and also to accommodate the city's departments. If the sale cannot be consummated it would be economy for the city, since the court will no longer stay in its present location, to provide the new building and by accommodating some of the city's departments lessen the cost of maintenance by the rental that would be received from the county, and at the same time insure the location of the court in or near Harvard square. This latter plan might well be considered in view of the fact that the Electrical Department is forced to occupy quarters in the present building for its fire alarm system, which are a menace to the safety of the public.

CENTRAL SQUARE BUILDING

Although an appropriation of $36,000 was provided the past year for the remodelling of this building, nothing has been done. The needs of both the fire and police departments for better headquarters might be solved in the adaptation of this building for their use, and also if possible provide a convenience station and branch library. A complete study of all our needs should be made before going ahead with the proposed remodelling of this building.

CITY HALL

By summoning the City Council into court to answer a complaint of the Commissioner of Public Records for the failure of the City to

provide the fireproof vaults required by law to preserve public records, an appropriation of $8,000 was passed to do the work. The General Fireproofing Company was awarded the contract for the sum of $6,500 to equip with steel shelving the vaults in the following offices: City Clerk, Street Department, Water Department, Clerk of Committees, Assessors, City Engineer, and the vaults in the basement for the City Clerk, City Messenger, City Electrician and Superintendent of Public Buildings.

In order to have all the executive officers of the various city departments under one roof it might be well to consider a plan to construct an addition to City Hall and thereby provide for the Overseers of the Poor, City Physician and the Registrars of Voters.

STATION THREE BUILDING

The location in this building of a branch library with its use by a large number of children, and with no separate provisions for their needs, made it necessary that they should be provided for. In order to do this, two rooms adjoining the library were thrown into one and a special children's room fitted up.

WEBSTER SCHOOL ALTERATIONS

The completion of the twelve-room addition to the Webster School with an outside heating plant, both of the latest type of schoolhouse construction, made it necessary for the safety of the whole school to take out of the old building the antiquated system of heating with hot-air furnaces and install instead, a complete indirect heating and ventilating system of the most approved type.

In addition to these changes, increased toilet accommodations were provided for both boys and girls. Proposals for doing the work were called for and contracts awarded the lowest bidder in each case, as follows: Construction, Smith, Alden & Co., $1,693; heating and ventilating, J. J. Hurley & Co., $4,124; boiler, Roberts Iron Works Co., $785.

NEW THORNDIKE SCHOOL

The danger involved in the further use of the Thorndike School made it necessary to secure a new building in place of the present one. The building site chosen is between Spring and Vine streets on an axis with the continuation of Seventh street. In addition to land acquired

for the building, there has been secured by the Playground Commission a large tract of land adjoining for playground purposes.

The proposed building will contain twenty-one class rooms, a large hall with a seating capacity of one thousand, and a system of baths for the use of the general public as well as the school children.

Work has already begun, contracts having been awarded to the lowest bidder in each case, as follows:—

General Construction—J. J. Powers	$82,862 00
Heating and Ventilating—J. J. Hurley & Co	13,365 00
Plumbing—Wm. H. Mitchell & Son Co	6,075 00
Electric Work—Carlisle & Connor	1,374 00

Mr. Charles R. Greco is the architect for the building, and Messrs. Burke & Hughes the heating and ventilating engineers.

CONCLUSION

I desire to acknowledge the faithful work of the inspectors of this department, James W. Emery, Leonard D. Garfield, William A. Ford, and the clerk, William H. Sheridan.

Respectfully,

JEREMIAH F. DOWNEY,
Superintendent of Public Buildings.

APPENDIX TO REPORT OF SUPERINTENDENT OF PUBLIC BUILDINGS

INSPECTION OF BUILDINGS

Number of inspections of buildings	2,375
Violations:	
Building without permit	23
Building too near line of adjoining lot	19
Defective chimneys	5
Defective foundations	18
Defective furnace pipes	37
Defective methods of construction	19
Miscellaneous	20
Dangerous buildings examined and ordered repaired or removed	8
Number of inspections of elevators	425
Number of defects found	21

GAS INSPECTION

Number of gas inspections	852
Number of fits inspected and tested	961
Number of jobs found not tight or otherwise not according to ordinance	64

INSPECTION OF PLUMBING

Following is a detailed report of the Inspection of Plumbing Department:

	Apr. 1, 1910, to Mar. 31, 1911
Number of applications received and permits granted	454
Number of tests and inspections	1,682
Number of jobs found defective or otherwise not in accordance with ordinances	7
Number prosecuted for violation of ordinances	0

In addition, the plumbing in all public buildings in process of construction or repair, was subjected to daily inspection.

The annual inspection of the means of egress from tenement houses, lodging houses, hotels, etc., was made in May, and a report made to the Chief of the District Police.

For the purpose of comparing statistics with other cities, as well as for the information of the United States Government and the various trade papers, it has been found most expedient to have the following tables cover the period of the last calendar year.

PERMITS ISSUED IN 1910

	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Additions (wood)	3	9	7	11	14	15	14	6	8	8	13	4	112
Additions (brick, stone or concrete)	1	1	1	3	2	...	...	...	2	...	1	1	12
Alterations (wood)	2	4	5	5	9	13	2	3	9	7	4	3	66
Alterations (brick, stone or concrete)	1	1	1	1	...	1	...	2	1	...	1	...	9
Apartment houses (wood)	...	...	...	...	3	1	2	1	...	1	...	...	8
Apartment houses (brick, stone or concrete)	...	...	...	...	1	...	...	...	...	2	...	...	3
Car barns (brick, stone or concrete)	...	...	...	...	...	...	...	1	...	...	...	...	1
Carriage houses (wood)	...	...	...	1	...	1	...	...	...	1	1	...	4
Chimneys and stacks	...	...	1	...	...	1	...	...	1	...	3	...	6
Church (wood)	...	...	...	...	...	1	...	...	...	...	...	..	1
Clubhouse (wood)	...	...	...	...	...	...	...	...	...	...	1	...	1
Clubhouses (brick, stone or concrete)	...	...	...	...	...	...	..	1	...	...	1	...	2
Dwellings (wood)	2	6	13	15	7	7	7	3	3	5	7	9	84
Dwellings (brick, stone or concrete)	...	...	1	...	...	1	...	...	...	...	...	...	2
Engines, boilers and motors	2	2	1	1	3	2	...	2	...	1	...	...	14
Factories (wood)	...	1	1	...	...	...	1	...	...	...	...	...	3
Factories (brick, stone or concrete)	1	2	...	1	1	4	...	1	2	...	1	1	14
Garages—private (wood)	1	2	2	...	1	2	2	4	1	2	2	...	19
Garages — public (brick, stone or concrete)	...	1	...	...	1	...	...	...	...	1	1	...	4
Gasometer (iron)	...	...	...	...	...	...	...	...	...	...	1	...	1
Greenhouses (wood and glass)	...	...	...	...	...	...	2	...	...	...	...	...	2
Heating apparatus	2	2	1	2	...	1	1	...	...	2	1	3	15
Office buildings (wood)	...	...	...	...	...	1	...	...	...	...	...	...	1
Office buildings (brick, stone or concrete)	...	...	...	...	1	...	...	...	...	...	...	...	1
Seminary (stone)	...	...	...	1	...	...	...	...	...	...	...	...	1
Stables (wood)	...	...	...	...	1	...	1	...	2	...	1	2	7
Storage (wood)	...	...	2	3	...	4	...	...	1	5	2	2	19
Freight houses (wood)	...	2	...	...	...	...	...	...	...	...	...	...	2
Stores (wood)	...	...	1	..	...	...	...	...	...	...	...	...	1
Stores (brick, stone or concrete)	...	1	1	1	...	1	...	...	...	...	1	...	5
Theatre (brick)	...	...	...	...	...	...	1	...	...	...	...	...	1
Miscellaneous (razed, moved, etc.)	6	4	3	14	6	8	7	9	7	1	14	4	83
Totals	21	38	41	59	50	64	40	33	37	36	56	29	504

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Additions (wood)	$725	$4,500	$6,000	$3,150	$13,575	$14,500	$8,475	$4,200	$3,200	$4,000	$6,000	$4,200	$72,525
Additions (brick, stone or concrete)	1,600	1,000	1,800	7,000	1,575	.....	.....	.....	12,300	.....	1,200	500	26,975
Alterations (wood)	1,900	3,000	3,200	5,350	3,500	20,200	3,625	325	7,400	1,500	2,150	1,500	53,650
Alterations (brick, stone or concrete)	4,000	7,000	1,000	100	.....	500	.....	3,000	500	.....	300	.....	16,400
Apartment houses (wood)	.....	.....	.....	.....	112,000	13,000	32,000	10,000	.....	15,000	.....	.....	182,000
Apartment houses (brick, stone or concrete)	.....	.....	.....	.....	11,000	.....	.....	.....	.....	35,000	.....	.....	46,000
Car barns (brick, stone or concrete)	.....	.....	.....	.....	.....	.....	.....	125,000	.....	.....	.....	.....	125,000
Carriage houses (wood)	.....	.....	.....	25	.....	300	.....	.....	.....	50	200	.....	575
Chimneys and stacks	.....	.....	50	.....	.....	50	.....	.....	75	.....	200	.....	375
Church (wood)	.....	.....	.....	.....	.....	40,000	.....	.....	.....	.....	.....	.....	40,000
Clubhouse (wood)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60,000	.....	60,000
Clubhouses (brick, stone or concrete)	.....	.....	.....	.....	.....	.....	.....	55,000	.....	.....	120,000	.....	175,000
Dwellings (wood)	8,500	34,500	74,300	84,500	44,300	53,000	47,700	11,600	19,500	26,300	52,500	60,000	516,700
Dwellings (brick, stone or concrete)	.....	.....	12,000	.....	.....	8,500	.....	.....	.....	.....	.....	.....	20,500
Engines, boilers and motors	100	2,000	200	500	1,000	300	.....	450	.....	100	.....	.....	4,650
Factories (wood)	.....	4,000	4,500	.....	.....	.....	400	.....	.....	.....	.....	.....	8,900
Factories (brick, stone or concrete)	7,000	58,000	.....	70,000	26,000	146,500	.....	15,000	55,000	.....	100,000	6,000	483,500
Garages—private (wood)	150	450	300	.....	200	700	150	950	250	900	550	.....	4,600
Garages — public (brick, stone or concrete)	.....	25,000	.....	.....	1,200	.....	.....	.....	.....	3,500	25,000	.....	54,700
Gasometer (iron)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20,000	.....	20,000
Greenhouses (wood and glass)	.....	.....	.....	.....	.....	.....	800	.....	.....	.....	.....	.....	800
Heating apparatus	600	1,000	500	800	.....	300	300	.....	.....	700	300	1,000	5,500
Office buildings (wood)	.....	.....	.....	.....	.....	2,000	.....	.....	.....	.....	.....	.....	2,000
Office buildings (brick, stone or concrete)	.....	.....	.....	.....	15,000	.....	.....	.....	.....	.....	.....	.....	15,000
Seminary (stone)	.....	.....	.....	200,000	.....	.....	.....	.....	.....	.....	.....	.....	200,000
Stables (wood)	.....	.....	.....	.....	750	.....	800	.....	700	.....	350	6,400	9,000
Storage (wood)	.....	.....	300	825	.....	15,500	.....	.....	2,000	3,800	8,000	450	30,875
Freight houses (wood)	.....	50,800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50,800
Stores (wood)	.....	.....	400	.....	.....	.....	.....	.....	.....	.....	.....	.....	400
Stores (brick, stone or concrete)	.....	5,000	5,500	1,500	.....	7,000	.....	.....	.....	.....	16,000	.....	35,000
Theatre (brick)	.....	.....	.....	.....	.....	.....	80,000	.....	.....	.....	.....	.....	80,000
Miscellaneous (razed, moved, etc.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	$24,575	$196,250	$110,050	$373,750	$230,100	$322,350	$174,250	$225,525	$100,925	$90,850	$412,750	$80,050	$2,341,425

REPORT OF THE BOARD OF APPEAL

OFFICE OF THE BOARD OF APPEAL,
CAMBRIDGE, MASS., April 7, 1911.

Hon. J. Edward Barry, Mayor of the City of Cambridge:—

SIR:—In accordance with the provisions of Section 8 of the Building Ordinances, the Board of Appeal would respectfully report as follows:—

During the past year seven cases have come before the Board, of which the following is a brief summary.

Charles R. Greco, Fresh Pond Parkway, April 13, 1910. Request for the consent of the Board to the use of terra-cotta blocks in the outside walls of a dwelling house, the consent of the Superintendent having been obtained. Consent given.

R. Currie Grovestein, 141 Oxford street, April 21, 1910. Appeal from decision of Superintendent relative to allowable area of tenement house. Superintendent refused permit on the ground that the building proposed exceeded the area allowed by ordinance. Decision of the Superintendent was sustained.

Newhall & Blevins, 10 and 12 Remington street, April 29, 1910. Appeal from Superintendent's decision relative to allowable area of tenement house. Superintendent refused permit on the ground that the building proposed exceeded the area allowed by ordinance. Decision of the Superintendent was sustained.

The Willowcraft Shops, 2229 Massachusetts avenue, May 12, 1910. Hearing on remonstrance against granting permit to install a gas engine. Remonstrants argued that it would be a detriment to the neighborhood. Board took the case under advisement, and on June 1st, after visiting the premises, directed that the permit be granted conditionally upon the operation of the engine in such a manner as not "to injure or disturb the health or comfort of the community or to increase the dangers from fire. . . ."

The Sterling Manufacturing Company, 40 Prospect street, May 12, 1910. Hearing on remonstrance against granting permit to install a five-horsepower electric motor. Objection was offered that motor would make considerable noise. Board directed that the permit be granted.

R. W. Hutchinson, junction Western avenue and River street, June 24, 1910. Appeal from decision of the Superintendent relative

to emergency exits on theatre. Appellant urged that the Superintendent and Board, acting together, approve a method of operating the exterior fire escape by an automatic attachment which would lower the staircase to the ground, this method being equal to that required by ordinance. Both the Superintendent and Board signified their willingness to do so if a suitable means was proposed. This was done later, and on July 11 the Superintendent and Board approved the method proposed.

H. Douglas Campbell, junction Western avenue and River street, September 13, 1910. Appeal from decision of Superintendent relative to projection over sidewalk. Appeal withdrawn.

Complete records of all these cases are on file at the office of the Superintendent of Public Buildings.

The expenses of the Board follow:—

William H. Sheridan, services as clerk.....$15 00

Respectfully submitted,

C. H. BLACKALL,
JOHN B. BYRNE,
H. N. STEARNS,
Board of Appeal.

WM. H. SHERIDAN.
Clerk.

REPORT OF THE ELECTRICAL DEPARTMENT

To the Honorable, the City Council of the City of Cambridge:—

GENTLEMEN:—I submit herewith the twelfth annual report of the Electrical Department for the fiscal year beginning April 1, 1910, and ending March 31, 1911.

In comparison with past years, the most prominent feature of this year's work is the enormous increase in the inspection of interior wiring, this increase being nearly 100 per cent. greater than ever before. The high efficiency that the whole department work has reached has been maintained, but the fire and police telegraph systems are greatly hampered by the lack of new and improved apparatus and appliances. I trust that the recommendations further on in this report may receive the consideration which the urgency of the situation demands.

Following is a statement of the work of the various branches of the department, with recommendations covering its immediate requirements.

INSPECTION OF ELECTRICAL WIRING IN BUILDINGS

The work of inspecting electrical wiring has for its object the safety of property from fire and of life from shocks due to faulty construction, installation and maintenance. Unfortunately the working force of the department available for inspection work is confined to the inspection of new construction and installation almost wholly, on account of the great amount of new work installed, and little time can be given to the equally important consideration of the proper maintenance of installations. Most of the defects in wiring due to improper and careless maintenance exist in open wiring, so that they can be remedied readily, but it is necessary that the attention of the owner be called to them before he realizes the necessity of repairing these defects, as long as they do not interfere with his use of the current. As much reinspection work as possible is done, but it would require the services of another inspector to cover the ground as it should be. Arrangements have just been completed to reinspect all electrical power installations. The Cambridge Electric Light Com-

pany is co-operating with the department in this work and their assistance will amount to about one-half the work necessary.

The close attention to detail and the efficiency of this branch of the department is attested by the fact that no electrical fires and no serious shocks to persons have been reported during the year.

As may be seen by the following table, the inspection work has nearly doubled in the past year.

TABULATION OF INSPECTION OF INTERIOR WIRING

	April 1, 1909, to March 31, 1910.	April 1, 1910, to March 31, 1911.
Number of inspections	1,513	2,972
Number of installations inspected	564	962
Capacity 16 C. P. inc. lamps installed	18,124	31,413
Capacity low potential arcs installed	42	147
Number of power motors installed	149	242
Horse power of motors installed	1,339	1,759
Number of generators installed	3	6
K. W. capacity of generators installed	230	193
Number of defects noted	909	1,126
Number of unfinished inspections	17	60

INSPECTION OF OUTSIDE WIRES AND POLES

The policy of substituting round chestnut poles for square hard pine poles which have become unsafe and require renewal has been continued. As heretofore, close attention has been given to every round pole set to assure the use of only straight, well-shaved poles, and no unfavorable criticisms or objections to their use have been received from citizens.

The number of permits granted during the year for round poles is as follows:—

Cambridge Electric Light Company	252
New England Telephone and Telegraph Company	84

Practically all the changes in overhead wires required by the subway construction have been completed, and where temporary changes were made the wires have been restored. The only further change of importance is the removal of one Cambridge Electric Light pole at the curve where Peabody street and Massachusetts avenue come together. The city wires have been removed from this pole and the Postal Telegraph Company is taking steps to run its cable underground from the corner of Cambridge and Peabody streets to Boylston street. The Cambridge Electric Light Company can take care of

its wires by running them in conduits already constructed. To support the lamp on the pole a pole will have to be installed on the new sidewalk at this point.

No accidents to life or property due to overhead wires have been reported during the year.

The number of permits to run wires issued during the year is as follows:—

Cambridge Electric Light Company	0
New England Telephone and Telegraph Co	1,455

POLICE SIGNAL SYSTEM

The comparatively good record of last year in the operation of this system was repeated this year. Only five opens of box circuits due to broken line wires existed and the number of other reports of trouble was somewhat less than ever before.

There is need of new boxes in several locations in the city and I trust that the necessary appropriation to purchase several boxes will be forthcoming next year. No new boxes have been installed for several years and the new districts built up both for residential and manufacturing purposes are not in most cases covered by the old boxes.

It will be necessary next year to install new batteries for the local circuits at Station 3. Part of this battery is used for a fire alarm local for tappers in that district. It is my intention to install a battery of larger cells which will give greater output and have a longer life with a less amount of labor for maintenance and renewal.

The work on the outside circuits is included under "Construction Work."

FIRE ALARM SYSTEM

The fire alarm system was operated for the past year with somewhat fewer cases of trouble than occurred last year. There were on the box circuits only ten open circuits in the line wires, seven in the tapper circuits, and four in the telephone circuits, a total of twenty-one. Last year in the box circuits and tapper circuits there were twenty-three, six more than this year. Of these twenty-one broken wires, five were caused by limbs cut from trees that were being removed, and five occurred during a wind storm which broke many limbs from dead trees.

The office apparatus gives about the same amount of trouble as is usual, but most of the difficulty occurred in the two repeaters. The slow time repeater broke down twice, on May 10, when it was out of service for two and one-half hours, and on July 29, when it was out of service for three hours. The fast time repeater hung up on February 22 on an alarm and was out of service for more than an hour. Without this apparatus alarms cannot be sent to the fire department, so that its importance cannot be overestimated. On account of the construction and age of the apparatus, however, these breakdowns and failures must be expected, and will probably increase in number until new and improved apparatus is installed, as I have recommended in former reports.

I have recommended for several years that keyless doors be installed on the fire alarm boxes that are not yet so equipped. With the key door boxes it is necessary to distribute keys among householders near the boxes or to equip the boxes with key boxes having glass doors. The former method is a poor makeshift that causes delay in opening the box, and the latter is a source of temptation to boys which leaves the box without a key if they succumb. During the year three keys were stolen from these boxes, the glass was broken in sixteen boxes, and in two cases the keys were found in the doors of fire alarm boxes, the boys in these latter cases evidently having been frightened before they could accomplish their object, which was, without doubt, to pull the box. False alarms are much more frequent from key door boxes than from keyless door boxes. I shall ask next year for an appropriation with which to equip some of the present key door boxes with keyless doors.

On January 25, 1911, there was cut into service in the fire alarm office a tapper connected with the Boston fire alarm system, and at the same time a tapper connected with the Cambridge system was installed in Engine 41's house in Brighton. Thus we receive all the Boston alarms and all our alarms are received in Boston. Our tapper will be removed to the Boston fire alarm office as soon as a circuit is available. As yet the necessary running cards have not been arranged for fire apparatus from one city to respond to alarms in the other.

The following new boxes were added during the year:—

Box 136 B. & M. Freight House, Bridge Street.
Box 153 Cambridge Gas Works, Third Street.
Box 192 Corner Fifth Street and Otis Street.
Box 271 Corner Portland Street and Albany Street.
Box 296 Monk's Laundry, Norfolk Street.

Box 323 Lamb & Ritchie, Albany Street.
Box 433 Corner Pleasant Street and Green Street.
Box 722 Corner Pemberton Street and Fairfield Street.
Box 723 Corner Massachusetts Avenue and Rice Street.

Boxes 136 and 296 are A. D. T. night watch and fire alarm installations. Boxes 153 and 323 are private boxes.

The work on line construction will be included in "Construction Work."

Following are a few statistics of the system:

Central Station equipment	1
Fire alarm boxes on the street	118
Fire alarm boxes on private premises	43
Fire alarm boxes with keyless doors	81
Fire alarm boxes with glass key boxes	26
Length of circuit wires in system in miles	115
Tower bells connected with system	10
Steam whistles connected with system	3
Tappers in firemen's houses	50
Tappers in factories where firemen work	8
Tappers in electrical department men's houses	3
Tappers in fire department houses	19
Tappers other than above	19
Telephones connected with the system	23
Total number of bell alarms for fire sounded during the past year	304
Number of second " " " " " " " "	2
" " third " " " " " " " "	1
" " general " " " " " " " "	0
" " no school " " " " " " " "	4
" " still alarms reported during the past year	90

CONSTRUCTION WORK

The equivalent of about twenty and one-half miles of single wire was installed during the year, principally in replacing old iron wire and for changes necessitated by the subway construction, and partially in repairing the storm damage done at Christmas, 1909. In Brattle square overhead cable was run from Mt. Auburn street to the fire alarm office, entering the building at the side near a window. This with the cable put up last year on account of removing the poles in Harvard square enabled us to remove all the single iron wires running to the fixtures on the roof of the building, making a far safer and much better looking construction.

From the end of the overhead cable on Massachusetts avenue near Church street ring construction, containing twisted pair copper wires, was installed as far as the junction of Cambridge street and Broadway on account of the difficulty experienced from interference by the trees to open wires.

About 1,600 feet of four-conductor circular loom cable was used in making the connection between the Boston and Cambridge fire alarm systems.

The work on account of the subway construction was as follows:—

Changing wires across Massachusetts Avenue at Central Square.
Changing Box 51 to new pole, Harvard Square.
Changing wires and arms in Quincy Square.
Changing wires in Lafayette Square.
Changing wires corner of Main and Portland Streets on account of change of pole of Telephone Company.
Changing Box 39, Central Square.
Changing wires corner Main and Osborn and corner Main and Brooks Streets.
Changing and rerunning wires in Eliot Square and on Mt. Auburn Street.
Rerunning wires on Eliot Street.
Changing wires and arms on Main Street near railroad crossing.
Changing wires on Mt. Auburn Street at City Building.

All the old wire replaced on account of the damage done by the storm of December 26, 1909, was removed.

The repair work on batteries, bells and telephones in schoolhouses was done as in the past.

STREET LIGHTING

Very few complaints about street lighting were received during the year, and such as were received were of minor importance and were attended to promptly.

There are yet many localities where lights are needed, but care should be exercised in the kind of lamp installed in each instance. There are many places where arc lamps are installed, where two or three smaller lamps would give better results at a less cost, especially where there are many trees. During the next year I expect to make a comprehensive study of the situation with the view of suggesting changes in the kind of lamp to be used to give the best results under the conditions. A suggestion will also be made to the Cambridge Electric Light Company to change its present arc lamps to magnetite lamps.

Twelve arc lamps, twenty incandescent lamps and sixteen Welsbach gas lamps were added during the year.

The number of lamps maintained by the City on the streets is as follows:—

	March 31, 1910	March 31, 1911
Arc lamps	*637½	*649½
Incandescent lamps	448	468
Welsbach gas lamps	377	393

*Half the expense of one arc borne by private citizen.

RECOMMENDATIONS

In the past several years the important recommendations of the Electrical Department have been repeated year after year, but up to the present no results have been obtained. I feel that so much has been said of the needs of the department that it is unnecessary to do more at this time than to refer to former reports and to merely mention a few of the most important matters which require attention.

In the order of their importance, these matters are new central fire alarm apparatus, a new fire alarm headquarters, underground wires, the centralization of the police telegraph apparatus in one station, and keyless doors for fire alarm boxes. I trust that next year some of these recommendations will receive such attention as will bring about their accomplishment.

I thank His Honor the Mayor, the City Council and the Committee on Wires and Lamps for their assistance and for the many courtesies shown me during the year.

Respectfully submitted,

TIMOTHY C. O'HEARN,
City Electrician.

REPORT OF THE SEALER OF WEIGHTS AND MEASURES

OFFICE OF THE SEALER OF WEIGHTS AND MEASURES,
BRATTLE SQUARE, CAMBRIDGE, March 18, 1911.

To the Honorable, the City Council:—

In compliance with the City Ordinance I respectfully submit a report for the Department of Weights and Measures for the year ending March 31, 1911.

APPROPRIATION		$4,500 00
EXPENDED		
Salaries of Sealers:		
Felix C. McBride	$1,018 76	
Manuel Andrew	164 52	
Emory T. Morris	900 00	
Hugh H. Healy	827 92	
Felix C. McBride	816 72	
		$3,727 92
Assistant:		
Edward G. McBride		88 80
Care of Horse:		
Street Department for Board	$216 00	
" " " Shoeing	16 28	
M. Newman for Shoeing	25	
		232 53
Repairs on Wagons and Harnesses:		
Burton & M. Cannon	$38 25	
T. H. Kneeland	32 50	
Owen Doherty	7 15	
Edward Ferris	3 00	
		80 90
Marking Acid:		
John J. Hargraves		16 00
Equipments:		
A. H. Huws, Repairs	$ 15	
Moore & Hadley, Hardware	2 60	
H. C. Dimond, Dies	48 74	
J. Frank Facey, Printing	27 50	
S. N. Brock, Hardware	4 27	
Caustic-Claflin & Co., Books	33 50	
L. A. Stingle, Hardware	4 65	
E. R. Sage, Soap	1 45	
S. F. Bowser, Clamps	3 00	
		125 86

Office Incidentals:

Boston Elevated Ry. Co.	$50 00	
G. F. Whiting, Clipping Horse	2 50	
Amee Bros., Pencils	1 25	
J. Frank Facey, Envelopes	2 50	
Harvard Co-operative Society, 2 leather bags	9 50	
Chapple Pub. Co., Printing	10 00	
City Messenger, Stationery	5 60	
Cambridge Sentinel, Advs.	10 00	
N. E. Tel. & Tel. Co.	26 10	
Porter Station Garage Rep.	4 22	
		121 67

City Scales:

The Fairbanks Co.	8 93
Otis Wood Works, Repairs	14 76
	$4,417 37

Appropriation	$4,500 00
Expenditures	4,417 37
Amount unexpended	$82 63

REVENUE

Fees for Sealing	$946 75	
Fees for Adjusting	52 45	
Weighing fees, Ed. Train	14 77	
" " W. A. Chyne	12 92	
		$1,026 89
Unpaid fees for 1910		53 38
		$973 51

Total amount expended	$4,417 37
Total amount collected	973 51
Net expense of Department	$3,443 86

TESTS MADE AT OFFICE FOR YEAR ENDING MARCH 31, 1911.

S—Sealed. A—Adjusted. C—Condemned

	Scales			Weights			Dry Measures			Liquid Measures			Yard Measures		Milk Measures	
	S	A	C	S	A	C	S	A	C	S	A	C	S	C	S	C
1910																
Apr	60	8	31	18	14	....	214	24	3	5	....	....	....	....	7,104	....
May	139	56	2	22	16	...	56	4	....	10	....	....	....	....	11,520	....
une	28	1	....	13	12	...	62	2	....	4	1	....	....	....	8,136	....
July	42	5	....	7	3	....	24	3	....	8	....	....	....	....	3,192	....
Aug	40	....	....	....	....	....	15	....	....	740	....	343	....	....	....	....
Sept	....	....	....	....	....	....	28	4	....	457	....	148	....	....	....	....
Oct	9	....	1	11	1	....	23	....	....	1,043	....	80	....	....	7,819	....
Nov	18	1	....	51	13	....	39	11	....	1,344	....	33	...	....	66	....
Dec	18	...	....	47	12	....	37	....	....	1,547	....	....	....	....	....	....
1911																
Jan	9	....	....	47	12	....	28	2	....	1,531	....	34	....	...	522	2
Feb	38	....	7	16	2	....	12	....	....	420	....	21	....	....	....	....
Mar	11	....	....	8	....	..	....	....	....	....	...	....	....	....	....	....
	412	71	41	240	85	....	538	50	3	7,109	1	659	....	....	38,359	2

Total number of tests made at this office, 47,570.

TESTS MADE OUTSIDE OF OFFICE FOR THE YEAR ENDING MARCH 31, 1911

S—Sealed. A—Adjusted. C—Condemned

	Scales			Weights			Dry Measures			Liquid Measures			Oil Pumps			Yard sure	
	S	A	C	S	A	C	S	A	C	S	A	C	S	A	C	S	C
1910																	
Mar	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	...	....
Apr	262	20	6	470	22	....	307	....	2	256	4	4	7	1	....	16	2
May	214	78	4	570	28	....	411	....	3	342	4	3	4	....	....	38	1
June	314	62	3	640	29	....	515	....	1	420	1	4	5	...	....	15	...
July	198	70	5	820	30	....	640	....	1	520	2	3	7	....	....	17	....
Aug	430	60	2	733	20	....	520	....	1	430	1	2	6	....	....	33	1
Sept	122	11	5	377	47	8	79	....	4	278	3	12	7	3	2	15	..
Oct	271	44	16	860	27	14	278	3	9	322	4	8	5	2	....	33	....
Nov	262	43	15	716	92	18	290	2	8	198	3	3	4	1	2	18	....
Dec	182	22	8	314	43	9	163	1	4	120	1	....	1	2	1	12	....
1911																	
Jan	142	10	3	168	12	5	149	....	2	98	....	1	....	1	....	....	....
Feb	168	12	9	240	6	3	210	1	...	102	2	5	7	2	2	12	....
Mar	220	18	12	198	4	7	140	....	7	212	1	4	6	7	1	14	....
	2,785	450	88	6,106	360	64	3,702	7	42	3,298	26	49	59	19	8	223	4

Total number of tests made outside of office, 17,286.

Platform Scales, 5,000 pounds capacity	60
" " less than 5,000 pounds capacity	515
Ice Cream Cans tested	5,920
Weights Tested	6,346
Total number of Weights correct	5,837
" " " " adjusted	509
Total number of Scales Tested	3,179
" " " " Adjusted	562
" " " " Condemned	129
Slot Weighing Scales Tested	36

Total number of tests made, 64,856

WEIGHTS AND MEASURES DEPARTMENT

Inventory of Property.

Standards furnished by the Commonwealth.

1 Balance—5 grains to 100 lbs.
1 Set (5) Avoirdupois Weights, 50-lb., 25-lb., 10-lb., 5-lb.
1 Set (11) Avoirdupois Weights, 4 lb. to 1-16 oz.
1 Kilogramme in case.
1 Steel meter in case.
1 Brass yard measure.
1 Set (5) iron dry measures, ½-bush. to 1 quart.
1 Set (6) iron liquid measures, 1 gallon to 1 gill.

1 Roll top desk
1 Black Walnut desk
5 Chairs
1 Table
1 Clothes Press
1 Scale Cabinet
1 Wooden Cabinet
2 Benches
1 Sink
5 Mats
1 Set Revised Laws
1 Set Card Records—Oak Case
1 Set Card Index—Oak Case
1 Hektograph
1 Letter Press
1 Blotter Bath

Miscellaneous Books	$200 00
1 Bay Horse	200 00
1 Express Wagon	100 00
1 Light Wagon	85 00
1 Pung	23 00
2 Harnesses	70 00
1 Plush Robe	1 00
1 Stable Blanket	2 00
1 Rain Blanket	2 00
1 Woolen Blanket	5 00
1 Halter	75
1 Hitch Weight	50
1 Platform Scale, ½ lb. to 2,500 lbs.	75 00
1 Folding Platform Scale, ¼ lb. to 600 lbs.	30 00
1 Balance, 1-10 millegramme to 500 grammes	35 00
1 Balance, 1-50 grain to ½ lb.	15 00

1 Sealer's Balance, 1 grain to 100 lbs.	150 00
2 Leather Tool Bags	9 50
1 Sealers' Balance, 1 grain to 8 lbs.	50 00
2 Sealers' Trip Scales (not used)	5 00
1 Spring Scale, 1 lb. to 125 lbs.	1 00
2 Sets (19) Avoirdupois Weights, 4 lbs. to ⅛ oz.	10 00
1 Set (9) Troy Weights, 16 oz. to ⅛ oz.	3 00
1 Set (13) Metric Weights, 1 kilo to 1 gramme	5 00
5 Boxes Miscellaneous Weights (not standardized)	10 00
1 Set (3) Iron Weights, 25-lb., 10-lb., 5-lb.	5 00
40 50-lb. Weights	100 00
1 Arch	2 00
3 Glass Graduates	1 00
1 Set (21) Grain Weights, 1,000 gr. to 1-100 gr.	13 50
1 Set (21) Metric Weights, 50 gram. to 1-10 mg.	13 50
1 Set (5) Copper Dry Measures, ½ bush. to 1 quart	45 00
1 Set (3) Brass Dry Measures, 1 qt. to ½ pint	5 00
2 Sets (14) Copper Liquid Measures, 1 gal. to 1 gill	30 00
1 Yard Measure	1 50
1 Iron Truck	5 00
1 5-gal. Copper Measure	15 00
1 Steel Tape	10 00
1 Pair of Inside Callipers	3 50
1 Set Brands	3 00
1 Plumbers' Furnace	5 00
Miscellaneous Tools	50 00
1 Wagon Scale (Lechmere Square)	400 00
1 Wagon Scale (Porter Road)	400 00
	$2,195 75

WEIGHTS AND MEASURES DEPARTMENT

During the last year the testing and sealing of milk jars has greatly decreased as most of the sealing is done at the factory. Acts of 1909, Chapter 531, gives the manufacturers of milk jars the right to seal their milk jars.

Last year for the first time we sealed ice cream cans, and one firm, Davis & Co., has about 40,000 cans; this more than makes up for the decrease in milk jars, as they run all sizes from one quart to five gallons.

Most all the large dealers are located in Cambridge and we have about one-half of all the ice cream cans in the State to seal.

The listing of oil pumps is also extra work, so in this department our work is increasing.

I would recommend appointing a deputy sealer to act as inspector, as I think inspections after the sealer has done his work very important.

Respectfully submitted,

FELIX C. McBRIDE,
Sealer of Weights and Measures.

REPORT OF THE CHIEF ENGINEER OF THE FIRE DEPARTMENT

CHIEF OF DEPARTMENT OFFICE,
CAMBRIDGE, April, 1911.

To the Honorable, the Mayor and City Council:—

GENTLEMEN:—I herewith submit a report for the fiscal year ending March 31, 1911.

The department as organized consists of seven (7) steam engine companies, two (2) chemical engine companies, four (4) ladder companies, one of which has in connection with it a combination hose and chemical wagon.

MANUAL FORCE

The required membership is ninety (90) permanent men and forty-eight (48) call men.

SALARIES PAID

Chief of Department, per year	$2,000 00
Deputy Chief, per year	1,500 00
Captains, per year	1,300 00
Lieutenants, per year	1,250 00
Enginemen, per year	1,200 00
Privates (permanent), per year, first year	820 00
Privates (permanent), per year, second year	920 00
Privates (permanent), per year, third year	1,095 00
Privates (call), per year	240 00

APPARATUS

The department has seven (7) steam engines and hose wagons to run with them, one (1) spare steam engine, seven (7) fuel wagons, one (1) spare hose wagon, two (2) chemical engines, one (1) combination hose and chemical wagon, four (4) ladder trucks, and one (1) spare ladder truck, twenty-nine (29) hand extinguishers distributed on the several pieces of apparatus, one (1) supply wagon and three (3) chief's wagons, one of which is kept in reserve. Engine No. 7 has been repaired with new boiler. Rubber tires have been

applied to all engines and hose wagons. The Dahill hoist has been applied to Ladder No. 3.

A description of each apparatus is given in the roster of the department.

HOSE

There are 15,150 feet of two and one-half inch cotton rubber-lined hose in good condition; 200 feet of two-inch cotton rubber-lined hose, and 1,350 feet of three-fourths-inch chemical hose; 350 feet of two and one-half inch hose was purchased to take place of the same amount condemned.

HORSES

There are fifty-one horses in the service. Eleven young horses have been bought and given in exchange, being unfit for fire service. Three were killed, one for the disease of glanders, one for ruptured blood vessel, one for broken leg, and one died from effects of pneumonia.

MEMBERS DISCHARGED

John E. Ricker, engineman, No. 4, retired by reason of disability and placed on pension roll August 1, 1910.

Thomas Mimnaugh, Ladder Company No. 2, retired by reason of disability and placed on pension role August 1, 1910.

John Haley, Engine Company No. 2, retired by reason of disability and placed on pension roll August 1, 1910.

James W. Irwin, retired by reason of disability December 1, 1910.

Captain Daniel A. McCaughin, Engine Company No. 4, retired by reason of disability and placed on pension roll January 1, 1911.

Captain Francis P. Scanlan, Engine Company No. 5, retired by reason of disability and placed on pension roll January 1, 1911.

Captain John H. Brown, Engine Company No. 6, retired by reason of disability and placed on pension roll January 1, 1911.

Captain Charles Emerson, Engine Company No. 2, retired by reason of disability and placed on pension roll January 1, 1911.

Lieutenant John F. Brassel, Engine Company No. 3, retired by reason of disability and placed on pension roll January 1, 1911.

Lieutenant Charles H. Wait, Engine Company No. 6, retired by reason of disability and placed on pension roll January 1, 1911.

Hiram W. Hooker, Engine Company No. 1, retired by reason of disability and placed on pension roll December 1, 1910.

DEATH

Charles E. Conner, engineman, No. 5, joined department January 15, 1879; died June 2, 1910.

APPOINTMENTS AND PROMOTIONS

George A. Regan, made permanent man June 19, 1910.
William J. Doyle, made permanent man September 25, 1910.
Charles N. Anderson, admitted to department September 25, 1910.
William F. McGrath, made permanent man December 18, 1910.
Thomas H. Anderson, made permanent man March 26, 1911.
James E. Jefferson, made permanent man March 26, 1911.
William H. C. Acford, made permanent man March 26, 1911.
Michael Mullen, made permanent man March 26, 1911.
Edward E. Kelley, admitted to department March 26, 1911.
Edward Looney, admitted to department March 26, 1911.
Hugh J. Powers, admitted to department March 26, 1911.
William Beck, admitted to department March 26, 1911.

Lieutenant Albert S. Benson, promoted to captain December 25, 1910.

Lieutenant William H. Barrow, promoted to captain December 25, 1910.

Lieutenant John H. Dardis, promoted to captain December 25, 1910.

Lieutenant Edward F. Conroy, promoted to captain December 25, 1910.

Engineman Peter F. McSorley, promoted to captain December 25, 1910.

Assistant Engineman Frank McGrath, promoted to captain December 25, 1910.

Driver Daniel E. Shea, promoted to captain December 25, 1910.

Ladderman E. J. Ouimette, promoted to lieutenant December 25, 1910.

Engineman Thomas F. O'Connell, promoted to lieutenant December 25, 1910.

Hoseman William F. Newman, promoted to lieutenant December 25, 1910.

Driver William J. Anderson, promoted to lieutenant December 25, 1910.

Hoseman John D. Shea, promoted to lieutenant December 25, 1910.

Hoseman Walter E. Chapman, promoted to lieutenant December 25, 1910.

Driver James H. Furfey, promoted to lieutenant December 25, 1910.

Engineman Daniel E. Powers, promoted to lieutenant December 25, 1910.

Driver Herman E. Guthiem, promoted to lieutenant December 25, 1910.

Hoseman Redmond M. Burke, promoted to lieutenant December 25, 1910.

Hoseman Richard J. Doyle, promoted to lieutenant December 25, 1910.

Driver William C. Richardson, promoted to lieutenant December 25, 1910.

Assistant Engineman William Reilly, promoted to engineman December 25, 1910.

Driver George L. Church, promoted to engineman December 25, 1910.

Assistant Engineman John H. McDermott, promoted to engineman December 25, 1910.

Driver John T. Henderson, promoted to engineman December 25, 1910.

Assistant engineman Thomas H. McCourt, promoted to engineman December 25, 1910.

Hoseman Albert R. Wait, promoted to assistant engineman December 25, 1910.

Hoseman James A. S. Drinkwater, promoted to assistant engineman December 25, 1910.

Hoseman Thomas F. Drummond, promoted to assistant engineman December 25, 1910.

Lieutenant James F. McCabe, promoted to captain March 31, 1911.

ACCIDENTS

April 4, 1910. Mrs. Annie Walch, No. 11 Norfolk street, taking alcohol bath, was burned to death.

April 14, 1910. T. H. Anderson, Engine Company No. 2, working at fire, No. 296 Western avenue, stepped on nail and was off duty seven days.

May 6, 1910. Albert Smith, Ladder Company No. 3, injured thumb at Boston Woven Hose Company fire and had blood poison.

May 6, 1910. John F. Downey, Engine Company No. 5, responding to Box 13, thrown from hose wagon, injuring shoulder and hip.

June 21, 1910. John McDonald and Mrs. Fred Thyng burned on hands trying to extinguish fire in residence No. 306 Broadway.

July 27, 1910. Henry A. Cutting, substitute Engine Company No. 2, working at fire in Austin Street Church, thrown from staging, injuring head.

November 7, 1910. David Higgins died from burns caused from smoking in bed at residence No. 33 Bay street.

November 23, 1910. John T. Henderson, Engine Company No. 4, responding to Box 54, fell, injuring knee.

December 1, 1910. Benjamin McArthur, Ladder Company No. 1, working at fire, No. 16 Mellen street, fell, breaking wrist.

December 5, 1910. Mrs. Annie Gilmore, No. 8 Lowland avenue, burned to death by clothes taking fire from stove.

December 18, 1910. Lawrence Robillard suffocated at residence No. 195 Sherman street.

March 4, 1911. John Stanly, No. 122 Otis street, burned to death by gas escaping and taking fire.

VALUE OF THE REAL AND PERSONAL PROPERTY IN CHARGE OF THIS DEPARTMENT

Real estate	$158,500 00

PERSONAL PROPERTY

	Value Mar. 31, 1910	Value Mar. 31, 1911
Apparatus, hose, etc.	$68,200 00	$71,900 00
Bedding and furniture	4,705 00	5,070 00
Hardware and tools	849 00	849 00
Horses and harnesses	16,000 00	16,000 00
Miscellaneous	1,100 00	1,100 00
	$76,454 00	$94,919 00

FIRES AND ALARMS

The whole number of alarms was 510; bells, 304; still, 206. Table showing the values, losses, etc.:—

	Value	Losses	Insurance	Insurance Paid
Buildings	$1,168,585 00	$73,939 03	$815,447 00	$66,037 58
Contents	287,984 00	37,134 59	131,865 00	19,040 89
Totals	$1,456,569 00	$111,073 62	$947,312 00	$85,078 47

APPROPRIATIONS AND EXPENDITURES

The appropriation for the year ending March 31, 1911, was $131,000.

Salaries	$111,000 00	
Less by transfer to General Expenses	1,600 00	
		$109,400 00
Amount expended		109,289 97
Balance unexpended		$110 03

General Expenses	$20,000 00	
Additional to repairs on Engine No. 7.....	1,600 00	
Additional to Dahill Hoist Ladder, No. 3.....	1,700 00	
Additional by transfer from Salaries	1,600 00	
		$24,900 00

ITEMS OF EXPENDITURE

Apparatus, repairs on	$7,757 63	
Buildings, repairs on	639 25	
Bedding and furniture	273 91	
Brooms, brushes, sponges, etc.....	494 63	
Badges, insignias, etc.....	65 75	
Chemical supplies	79 84	
Fuel	2,675 90	
Gas and electric light	894 20	
Horses bought and hired	2,433 00	
Horse shoeing	1,491 03	
Hardware and tools.....	141 57	
Hose and repairs on.....	475 80	
Harness and repairs on	282 45	
Hay, grain and straw.....	6,395 59	
Laundry for department.....	285 26	
Oil, soap, disenfectant, etc.....	189 05	
Printing and stationery	106 43	
Miscellaneous	208 54	
		24,889 83
Amount unexpended		$10 17

RECOMMENDATIONS

I repeat my recommendations made in years past for a new station on Inman square.

The present station is too small and unfit for the men to live in; also the quarters occupied by Ladder Company No. 1 and Engine Company No. 1 in the City building on Brattle square are not large enough to accommodate the present members and those who will be added in the future.

I recommend a new station for Engine Company No. 1 as near the present location as possible, and a new station for Ladder Company No. 1 near Putnam square.

I recommend the purchase of an automobile combination hose and chemical wagon, to be located in station now occupied by Chemical No. 2, which I desire to locate on Portland street with Ladder No. 2. I will say that of 360 fires where any apparatus was used 281 were extinguished with chemical alone and 79 were extinguished with water and chemical together.

I recommend that the salary of assistant engineman be increased from $1,095 per year to $1,150 per year, for the reason that their responsibilities are nearly as great as those of the enginemen, and require considerable study before they can obtain a license from the State to fill the position. I recommend the appointment of one more lieutenant in the department that the Chief may choose one from the whole number as his aide to take the position now known as Chief's driver.

During the coming year there is not a doubt but that one if not two engines will have to be sent to repair shop to get new boilers and have general repairs. Engine No. 5 boiler is eleven years old, which is two or three years beyond the usual time of wear. Engine No. 1 boiler is ten years old, and the boiler of the reserve engine is fourteen years old.

Respectfully submitted,

NATHANIEL W. BUNKER,
Chief of Fire Department.

APPENDIX

ROSTER OF THE DEPARTMENT, MARCH 31, 1911

ENGINEERS

Name	Rank	Age	Residence
Nathaniel W. Bunker	Chief.....	67	5 Ashton place
James M. Casey.....	Deputy Chief....	46	353 Huron avenue

CHIEF'S DRIVER

No. of Badge	Name	Rank	Age	Residence
1	William J. Atkinson...	Private.....	36	5 Plymouth street

ENGINE CO. NO. 1

108 Mt. Auburn Street

First size Amoskeag engine, drawn by three horses; capacity, 900 gallons a minute; has been in service since 1883. New boiler 1901. One hose wagon drawn by two horses, with 800 feet of hose and two 3-gallon pony chemicals; has been in service since 1889. Engine and wagon rubber-tired wheels February, 1910.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
5	Daniel E. Shea.....	Captain.....	54	65 Putnam avenue
131	Richard J. Doyle.....	Lieutenant.....	36	104 Fayerweather street
15	John H. McDermott....	Engineman.....	59	11 Dodge street
39	Jeremiah O'Connor.....	Asst. Engineman.	53	2 Olive place
4	Hiram W. Hooker.....	Private.....	34	45 Fayette street
127	Mortimer F. Harting...	"	39	13 Clinton street
81	James E. Jefferson.....	"	26	29 Putnam avenue
	Call Force			
8	Thomas H. Kneeland...	Private.....	47	108 Mt. Auburn street
13	Joseph J. Corcoran....	"	51	31 Ash street
35	Horace P. Walker.....	"	34	136 Hancock street

ENGINE CO. NO. 2

384 Massachusetts Avenue

First size Amoskeag engine, drawn by three horses; capacity 900 gallons a minute; has been in service since 1891. New boiler 1908. Wheels rubber-tired 1907. One hose wagon drawn by two horses, with 800 feet of 2½-inch hose and two 3-gallon pony chemicals; has been in service since 1892. Wheels rubber-tired 1904.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			**Permanent Force**
110	William F. Newman....	Captain.....	65	384 Massachusetts ave.
14	Daniel E. Powers.....	Lieutenant.....	52	19 Park street
2	Charles A. Cairns.....	Engineman.....	45	384 Massachusetts ave.
28	Albert R. Wait.....	Asst. Engineman.	39	114 Hampshire street
90	David T. Burns.....	Private.....	33	14 Fiske place
7	Cornelius J. Crowley...	"	32	53 Tremont street
84	Thomas H. Anderson..	"	26	15 Watson street
	Call Force			
20	John Balfe.....	Private.....	40	1129 Cambridge street
22	Charles H. Cutting.....	"	59	812 Main street
71	James P. Welch.....	"	48	70 Columbia street
23	Thomas J. Conroy.....	"	36	466 Cambridge street

ENGINE CO. NO. 3

House, 35 Third Street

First size Amoskeag engine, drawn by three horses; capacity 900 gallons a minute; has been in service since 1871. New boiler 1905. Wheels rubber-tired 1905. One hose wagon, drawn by two horses, equipped with 800 feet of 2½-inch hose, and two 3-gallon pony chemicals; put in service 1886. Rebuilt wheels and rubber-tired 1908.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
27	Frank McGrath	Captain.....	47	39 Hunting street
30	William F. Newman....	Lieutenant.....	41	11 Hunting street
18	William Reilly	Engineman.....	40	300 Prospect street
29	Patrick J. Hayes	Asst. Engineman.	49	92 Gore street
120	Daniel J. Holleran.....	Private.....	37	256 Elm street
12	William J. McCusker...	"	36	109 Antrim street
3	Edward F. Looney.....	"	34	15 Marney street
	Call Force			
31	Walter Baker	Private.....	58	37 Antrim street
33	William J. Connors....	"	32	228 Webster avenue
34	Charles H. Leddy.....	"	51	24 York street
36	Leo J. Shields.....	"	32	341 Cambridge street
37	Joseph King	"	34	49 Third street

ENGINE CO. NO. 4

House, 2029 Massachusetts Avenue

Third size Amoskeag engine, drawn by two horses; capacity 550 gallons a minute; has been in service since 1895. New boiler 1904. Wheels rubber-tired 1910. One hose wagon drawn by two horses, equipped with 900 feet of 2½-inch hose and two 3-gallon pony chemicals; has been in service since 1901. Wheels rubber-tired.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
87	Albert S. Benson.....	Captain.....	68	52 Boylston street
119	Walter E. Chapman....	Lieutenant.....	43	73 Porter road
42	John T. Henderson.....	Engineman.....	42	11 Yerxa place
24	James A. S. Drinkwater	Asst. Engineman.	38	1 Cottage place
41	George E. Muzzey.....	Private.....	70	5 Blake street
57	Frank J. Murray.....	"	32	19 Rice street
32	Hugh J. Powers.....	"	25	169 Willow street
	Call Force			
45	George F. Durgin.....	Private.....	43	42 Lake street
47	William F. Henderson	"	46	74 Rice street
136	Ralph W. E. Hanna....	"	32	44 Rindge avenue

ENGINE CO. NO. 5

House, Inman Square

Second size Amoskeag engine, drawn by two horses; capacity, 700 gallons a minute; has been in service since 1870. New boiler 1899. Wheels rubber-tired 1910. One hose wagon drawn by two horses, equipped with 800 feet of 2½-inch hose and two 3-gallon pony chemicals; has been in service since 1895. Rebuilt and wheels rubber-tired 1908.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
51	Peter F. McSorley.....	Captain.....	52	1431 Cambridge street
16	John D. Shea.....	Lieutenant.....	41	15 Athens street
53	George L. Church.....	Engineman.....	32	1293 Cambridge street
54	John J. O'Callahan.....	Asst. Engineman.	42	36 Tremont street
125	Arthur L. Marshall.....	Private.....	27	87 Hammond street
134	Charles R. Hooker.....	"	67	45 Fayette street
52	Timothy F. McCarthy..	"	38	8 Clary street
43	William Beck	"	28	234 Webster avenue
	Call Force			
59	George W. Stevens.....	Private.....	45	135 Antrim street
58	James H. McGrath.....	"	55	29 Ellsworth avenue
60	John F. Downey.....	"	32	994 Cambridge street
61	William G. Johnson....	"	50	14 Springfield street

ENGINE CO. NO. 6

House, 176 River Street

Second size Amoskeag engine, drawn by two horses; capacity, 700 gallons a minute; has been in service since 1873. New boiler 1907. Wheels rubber-tired 1907. One-horse hose wagon, equipped with 800 feet of 2½-inch hose and two 3-gallon pony chemicals; has been in service since 1892. Wheels rubber-tired 1907.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
126	Lewis C. Clark.....	Captain.....	66	264 Green street
66	Herman E. Gutheim...	Lieutenant.....	34	460 Huron avenue
62	J. Lewis Howe.....	Engineman.....	58	189 Western avenue
6	Thomas F. Drummond.	Asst. Engineman.	43	192 Green street
78	Charles A. Olson.....	Private.....	42	10 Mt. Auburn street
65	Warren A. Dale.....	"	39	104 Otis street
118	William H. C. Acford..	"	25	14 Carlisle street
	Call Force			
69	John E. Savage.....	Private.....	56	1 Pond street
70	Thomas F. Mullen.....	"	38	184 River street
72	Charles P. Cox, Jr.....	"	39	44 Watson street

ENGINE CO. NO. 7

350 Main Street

Second size Amoskeag engine, drawn by two horses; capacity, 700 gallons a minute; has been in service since 1895. New boiler 1911. Rubber-tired 1911. Two-horse combination hose and chemical wagon, equipped with two 25-gallon tanks, two 3-gallon pony chemicals, 800 feet of 2½-inch hose, and 200 feet of ¾-inch chemical hose. Wheels rubber-tired. Put in service 1908.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
17	James H. Furfey.....	Captain.....	54	59 Prince street
113	William C. Richardson.	Lieutenant.....	43	76 Antrim street
63	Thomas H. McCourt....	Engineman.....	41	59 Rindge avenue
73	John McCarthy	Asst. Engineman.	57	282 Massachusetts ave.
76	Henry J. O'Brien.....	Private.....	35	28 York street
83	Joseph S. Hayes.....	"	33	1 Marney street
77	Dennis R. Sullivan.....	"	40	35 Harvard street
	Call Force			
79	George A. Garrity.....	Private.....	50	64½ Prospect street
80	Joseph A. Wood.....	"	49	102 Moore street
82	Edward Clark	"	45	80 Hampshire street
85	James E. Cunha.....	"	34	103 Elm street

LADDER CO. NO. 1

House, Eliot Square

Ordinary ladder truck, drawn by three horses, equipped with 486 feet of ladders, the longest ladder 65 feet extension; also equipped with two 3-gallon and one 5-gallon extinguishers, and jumping net, life lines, etc. Put in service 1892. Rebuilt with improvements. Wheels rubber tired 1907. Band brakes applied 1909.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
129	William H. Barrow....	Captain.....	42	106 Fayerweather street
88	William J. Anderson...	Lieutenant.....	39	79 Putnam avenue
97	James F. McPherson...	Private.....	38	67 Winthrop street
87	Benjamin McArthur ...	"	37	117 Magazine street
121	Edward Grant	"	33	11 Gerry street
107	Michael Mullen	"	36	38 Plymouth street
	Call Force			
92	Joseph E. Burke.....	Private.....	49	7 Mill street
93	John W. Jefferson.....	"	47	98 Winthrop street
96	James F. Rooney.....	"	41	26 Shepard street
95	Thomas J. McGowan..	"	46	17 South street
25	Walter L. Allen.....	"	31	70 Plymouth street

LADDER CO. NO. 2

House, 276 Portland Street

Combination ladder and chemical, drawn by three horses, equipped with 445 feet of ladders, longest ladder 65 feet extension; two 30-gallon tanks, 200 feet of ¾-inch chemical hose; two 3-gallon pony chemicals, jumping net, life lines, etc. Put in service 1902. Wheels rubber-tired 1906. Hub band brakes applied 1908.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
128	John H. Dardis.....	Captain.....	41	27 Park street
26	Thomas F. O'Connell...	Lieutenant.....	50	24 York street
100	James J. Clifford.....	Private.....	39	448 Huron avenue
116	Frank A. Casey.....	"	34	100 Gore street
102	Charles F. McElroy....	"	32	74 Otis street
108	Thomas J. Parks.....	"	35	148 Berkshire street
104	William F. McGrath...	"	27	39 Hunting street
	Call Force			
105	Jeremiah J. Hayes.....	Private.....	45	17½ Marney street
106	Thomas J. Lane.....	"	47	134 Otis street
91	Timothy J. Murphy....	"	34	697 Cambridge street
109	Joseph W. McCloskey..	"	34	232 Webster avenue

LADDER CO. NO. 3

House, 394 Massachusetts Avenue

Hayes 75-feet aerial truck, drawn by three horses, carries 172 feet of single ladders, jumping net, two 3-gallon pony chemicals; put in service 1894. Hose and Morse nozzle applied for water tower 1909. Wheels rubber-tired 1910. Dahill hoist and band brakes applied 1911.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
98	John T. McNamee.....	Captain.....	56	9 Magazine street
112	Exurie J. Ouimette....	Lieutenant.....	48	394 Massachusetts ave.
117	Morris A. Skold.....	Private.....	29	270 Washington street
94	James H. McCabe.....	"	29	128 Hampshire street
38	Charles N. Anderson...	"	30	581 Franklin street
111	William H. Cairns, on leave of absence ...	"		
	Call Force			
114	Charles A. Sharon.....	Private.....	63	37 Pine street
115	Lincoln E. Wheeler.....	"	69	16 Columbia street
103	Albert Smith	"	57	79 Plymouth street

LADDER CO. NO. 4 AND COMBINATION WAGON

Wyeth Square

Ordinary ladder truck, drawn by two horses, equipped with 340 feet of ladders; longest ladder 60-feet extension; two 3-gallon pony chemicals, jumping net, life lines, etc. Wheels rubber-tired. Put in service 1905.

Combination hose and chemical wagon, drawn by two horses, equipped with two 25-gallon tanks, two 3-gallon pony chemicals, 800 feet of 2½-inch cotton rubber-lined hose, 200 feet of ¾-inch chemical hose. Wheels rubber-tired; put in service 1905.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
133	Edward F. Conroy.....	Captain.....	39	10 Mt. Auburn street
44	Redmond M. Burke....	Lieutenant.....	42	22 Hadley street
40	John Gibson, Jr.....	Private.....	36	114 Foster street
135	Bernard J. Coakley....	"	36	43 Hubbard avenue
9	Edward F. Kelley.....	"	28	427 Rindge avenue
123	Francis V. Doyle.....	"	34	104 Fayerweather street
132	Matthew F. Gleason....	"	40	104 Concord avenue
56	Thomas A. Haley.....	"	31	19 Rice street
	Call Force			
122	Thomas J. King.....	Private.....	34	264 Walden street
46	Joseph T. Vocell.....	"	46	12 Bolton street

CHEMICAL ENGINE CO. NO. 1

5 Western Avenue

Perkins chemical engine, drawn by three horses, equipped with two 90-gallon tanks and two 3-gallon pony chemicals, 200 feet of 2-inch linen hose, 450 feet of ¾-inch chemical hose; has been in service since 1880. Wheels rubber-tired 1904. Rebuilt 1909.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
99	James F. McCabe.....	Captain.....	49	440 Massachusetts ave.
11	Daniel J. O'Connell.....	Engineman.....	28	497 Windsor street
64	Robert J. Buchanan....	Private.....	40	20 Griggs street
73	William J. Doyle.....	"	38	1355 Cambridge street
111	Edward L. Kelley.....	"	26	368 Prospect street

CHEMICAL ENGINE CO. NO. 2

Champion chemical engine, drawn by two horses, equipped with two 60-gallon tanks and two 3-gallon pony chemicals, 300 feet of ¾-inch chemical hose; has been in service since 1894. Rebuilt and rubber-tired 1908.

No. of Badge	Name	Rank	Age	Residence
	Permanent Force			
86	Cutler L. Vose.....	Captain.....	43	999 Massachusetts ave.
130	Timothy Curran	Engineman.....	42	102 Fayerweather street
74	William T. Anderson..	Private.....	32	505 Banks street
124	Garfield F. Eagleston..	"	33	14 Farwell place
48	George A. Regan.....	"	29	43 Creighton street

FIRES AND ALARMS

From April 1, 1910, to April 1, 1911

April, 1910

Friday, April 1, 10.24 A. M. Box 791

Off Harvey Street. Kettle of tar. No damage.

Saturday, April 2, 8.26 A. M. Box 18

No. 114 Thorndike Street. Owned by L. A. Stickney. Loss, $92. Insurance, $2,000. Occupied by Albert J. Grund as dwelling. No loss. Cause, hot ashes in shed.

Saturday, April 2, 9.25 P. M. Still alarm

No. 442 Massachusetts Avenue. Owned by F. A. Kennedy. Loss trifling. Occupied by H. W. Berry Company as locker. Loss trifling. Cause unknown.

Monday, April 4, 1.15 P. M. Box 284

No. 11 Norfolk Street. Owned by Hanna Powers. Loss, $30. Insurance, $4,000. Occupied by Annie Walsh as dwelling. Loss, $69. Insurance, $1,000. Cause, woman taking alcohol bath. Alcohol took fire.

Monday, April 4, 2.30 P. M. Still alarm

Near Western Avenue Bridge. Grass fire.

Wednesday, April 6, 6.45 A. M. Still alarm

No. 47 Brattle Street. Owned by William Bates heirs. No loss. Occupied by Lincoln Inn as dwelling. No loss. Cause, pan of fat on stove.

Wednesday, April 6, 7.22 A. M. Box 13

No. 79 Cambridge Street. Owned by Boston Elevated Railroad. No loss. Occupied by Gaetano Schipilite as dwelling. Loss trifling. Cause, child set fire to curtain.

Thursday, April 7, 1.50 P. M. Still alarm

No. 12 Columbia Street. Owned by Mr. Whitney. No loss. Occupied by H. A. Phittleplace as dwelling. No loss. Cause, paper behind stove took fire.

Thursday, April 7, 2.10 P. M. Still Alarm

Cherry Street. Owned by Hugh Nawn as kettle of tar. Loss trifling. Cause, tar boiled over and took fire.

Thursday, April 7, 4.34 P. M. Box 483

No. 9 Ashton Place. Owned by Leonard D. Garfield. Loss, $109.10. Insurance, $4,000. Occupied by Hubert L. Clark as dwelling. No loss. Cause, child set fire to rubbish in cellar.

Friday, April 8, 5.53 P. M. Box 27

No. 9 Moore Street. Owned by E. Brooks. Loss trifling. Occupied by Charles Gouris as dwelling. Loss trifling. Cause, oil stove took fire.

Friday, April 8, 6.02 P. M. Box 39

No. 31 Prospect Street. Owned by J. M. Robbins. Loss, $25. Insurance, $2,600. Occupied by Mary McLeod as dwelling. Loss, $35. No insurance. Cause, careless dropping fire on couch.

Sunday, April 10, 2.35 A. M. Still Alarm

Accidental automatic from Gerlash Mill.

Sunday, April 10, 3.00 A. M. Box 39

No. 40 Prospect Street. Owned by T. H. Rayond, agent. Loss, $389. Insurance, $45,000. Occupied as public hall. Cause, careless dropping of fire on floor.

Sunday, April 10, 2.25 P. M. Box 67

No. 128 Concord Avenue. Owned by H. E. Bothfield. Loss, $423. Insurance, $6,000. Occupied by Owen Hilley as dwelling. Loss, $80. Insurance, $1,000. Cause unknown. Fire in cellar.

Sunday, April 10, 8.13 P. M. Box 121

No. 185 Bridge Street. Owned by D. Consolazio. Loss, $83. Insurance, $5,600. Occupied by Francisco Lippora as grocery store. Loss, $200. Insurance, $400. Cause, careless dropping match in lighting gas.

Monday, April 11, 10.00 A. M.

Accidental automatic from H. M. Sawyer.

Monday, April 11, 8.45 P. M. Still Alarm

No. 515 Franklin Street. Owned by G. R. O'Brien. Loss trifling. Occupied by C. E. Scanlan as druggist. Loss trifling. Cause, gas light ignited wood work.

Thursday, April 14, 7.11 A. M. Box 291

Rear 1006 Cambridge Street. Owned by T. F. Scanlan. No loss. Occupied by Edward Martchm as dwelling. No loss. Cause, paper behind stove took fire.

Thursday, April 14, 2.08 P. M. Box 511

No. 97 Mt. Auburn Street. Owned by John Reed. Loss, $625. Insurance, $5,250. Occupied by Phoenix Club as clubhouse. No loss. Cause, sparks from chimney on roof.

Thursday, April 14, 7.23 P. M. Box 381

Nos. 296-302 Western Avenue. Owned by Thomas H. Armstrong. Loss, $1,398. Insurance, $7,000. Occupied by M. S. Rosenberg as dwelling. No loss. Cause unknown. Originated on rear piazza of building. No. 298. Occupied by S. Levitch as dwelling. Loss, $71. Insurance, $800. Occupied by N. Barron as dwelling. Loss, $70. Insurance, $800. No. 300. Occupied by W. Goldstein as dwelling. Loss, $100. No insurance. Occupied by

Frank Duchin as dwelling. Loss, $115. Insurance $800. No. 302. Occupied by S. Sagaman as dwelling. Loss, $10. Insurance, $500.

Nos. 304-310 Western Avenue. Owned by T. H. Armstrong. Loss, $2,787. Insurance, $6,500. Occupied by David Smith as dwelling. Loss, $225. Insurance, $1,000. No. 306. Occupied by B. Cooper. Loss, $100 No insurance. Occupied by B. Harris. Loss, $85. Insurance, $500. No. 308. Occupied by S. Cohen. Loss, $219.25. Insurance, $800. Occupied by J. W. Bennett. Loss, $419. Insurance, $1,500. No. 310. Occupied by R. Abramson. Loss, $275. Insurance, $800. Cause, exposure from building No. 296 to 302.

Thursday, April 14, 7.25 P. M. Box 37

Alarm for same fire as from Box 381.

Thursday, April 14, 8.30 P. M. Still Alarm

No. 17 Austin Street. Owned by Quincy & Co., Agent. No loss. Occupied by J. C. Robinson as dwelling. No loss. Cause, chimney fire.

Friday, April 15, 3.29 A. M. Box 381

No. 296 Western Avenue. Cause, spark from previous fire, alarm unnecessary.

Friday, April 15, 6.10 A. M. Still Alarm

Cor. Harvard and Sixth Streets. Owned by Boston El. R. R. No loss. Occupied by Essex Brass Co. No loss. Cause, fire on floor from furnace.

Friday, April 15, 3.13 P. M. Box 434

Rear 1000 Mass. Avenue. Rubbish behind barn set by boys.

Friday, April 15, 5.10 P. M.

Careless automatic alarm from Irving & Casson.

Saturday, April 16, 2.05 P. M. Box 391

No. 114 Pearl Street. Owned by J. P. Squires estate. No loss. Occupied by E. Westborn as dwelling. No loss. Cause, children with matches under cellar stairs.

Wednesday, April 20, 5.55 A. M. Box 27

Albany and Osborn Streets. Rubbish on vacant land.

Thursday, April 21, 12.05 P. M. Still Alarm

No. 150 Mt. Auburn Street. Owned and occupied by M. E. Evans as dwelling. No loss. Cause, chimney fire.

Thursday, April 21, 3.23 P. M. Box 195

False alarm from A. D. T. Box in Squire's Building.

Saturday, April 23, 3.17 P. M. Box 134

False alarm.

Saturday, April 23, 9.10 P. M. Box 684

Rear 99 Crescent Avenue. Owned by B. & M. R. R. as empty freight car. Loss, $500. Insurance, $500. Cause, sparks from locomotive.

Saturday, April 23, 9.10 P. M. Box 684

No. 99 Crescent Avenue. Owned and occupied by A. H. Hews Estate as pottery. Loss, $125. Insurance, $5,000. Cause, exposure from car fire. Box 742 alarm for same fire as from Box 684.

Sunday, April 24, 10.44 A. M. Box 681

No. 62 Walden Street. Owned by L. E. Rose. No fire. Cause, smoke mistaken for fire.

Wednesday, April 27, 7.00 P. M. Still Alarm

Rear 67 Sidney Street. No loss. Cause, rubbish.

May

Tuesday, May 3, 2.45 A. M. Still Alarm

No. 217 River Street. Owned by Frederick Richardson. Loss, $175. Insurance, $400. Occupied by Marvin Brotman as grocery store. Loss, $300. Insurance, $600. Cause, rats and matches under counter.

Friday, May 6, 7.06 A. M. Box 241

No. 110 Portland Street. Owned by Boston Woven Hose Co. Loss, $275. Insurance, $2,500. Occupied by Boston Woven Hose Co. as belt paint shop. Loss, $625. Insurance, $2,500. Cause, spontaneous in paint droppings under floor.

Friday, May 6, 8.29 A. M. Box 23

No. 295 Windsor Street. Owned by Samuel Klashman. Loss, $32.50. Insurance, $14,000. Occupied by Mary Jenkins as dwelling. Loss, $15. Insurance, $1,000. Cause, careless throwing match in waste basket.

Friday, May 6, 3.14 P. M. Box 191

Near Ninth Street. Owned by B. & A. R.R. as freight car. Loss trifling. Cause, set afire by boys.

Friday, May 6, 11.04 P. M. Box 13

No. 145 Bridge Street. Owned by Henry Flynn. Loss, $40. Insurance, $2,500. Occupied by Albert Prince as dwelling. Loss, $63. Insurance, $250. Cause, careless throwing fire on couch.

Saturday, May 7, 7.50 P. M. Still Alarm

No. 36 Third Street. Owned by N. E. Lodge I. O. O. F. No loss. Occupied by John J. Long as dwelling. Loss, $10. No insurance. Cause, careless use of match on bed.

Wednesday, May 11, 8.40 A. M. Still Alarm

Rear No. 5 Marcella Street. Owned by William Conway as dwelling. No loss. Cause, boys set fire to ash barrel.

Wednesday, May 11, 10.15 A. M. Still Alarm

Rear No. 5 Marcella Street. Owned by William Conway as dwelling. No loss. Cause, boys set fire to rubbish.

Wednesday, May 11, 12.20 P. M. Still Alarm

Putnam Avenue. Dump fire.

Thursday, May 12, 10.02 A. M. Box 191

No. 354 Vine Street. Owned by Joseph Mitzgar. Loss, $15. Insurance, $600. Occupied by Elizabeth King as dwelling. Loss, $10. No insurance. Cause, child set fire to bed.

Thursday, May 12, 6.45 P. M. Box 126

No. 336 Cambridge Street. Owned by Dennison Estate. Loss, $25. Insurance, $3,000. Occupied by E. H. Patten as drug store. Loss, $12. Insurance, $800. Cause, mice and matches set fire on shelf in back room.

Friday, May 13, 12.20 P. M. Box 351

No. 159 Hamilton Street. Owned by Katherine Cummings. No loss. Occupied by Timothy Keefe as dwelling. No loss. Cause, chimney fire.

Friday, May 13, 12.28 P. M. Box 29

No. 394 Norfolk Street. Owned and occupied by Philip Malone as dwelling. No loss. Cause, chimney fire.

Saturday, May 14, 8.34 P. M. Box 215

No. 313 Portland Street. Owned by Frank Powell. Loss, $7. Occupied by Michael Pachnasky as dwelling. No loss. Cause, child set fire in water closet.

Sunday, May 15, 2.30 P. M. Still Alarm

No. 54 Sidney Street. Owned by J. S. Sawyer. No loss. Occupied by D. Glynn as dwelling. Loss, $13. Insurance, $1,000. Cause, careless smoking in bed.

Sunday, May 15, 5.04 P. M. Box 45

Banks Street. Dump fire.

Monday, May 16, 9.20 A. M. Still Alarm

No. 6 Sacramento Street. Owned by Wm. McLeod. Loss trifling. Occupied by several families. No loss. Cause, rats in cellar ceiling.

Monday, May 16, 5.14 P. M. Box 251

No. 267 Main Street. Owned by Austin Ford Estate. Loss, $50. No insurance. Occupied by Bockman & Oxmer as foundry. Loss, $25. No insurance. Cause, careless throwing fire in rubbish outside of building.

Tuesday, May 17, 5.43 P. M.

Accidental automatic alarm from Irving & Casson.

Tuesday, May 17, 9.39 P. M. Box 212

No. 44 Warren Street. Owned by Austin Goglermo. Loss, $75. Insurance, $2,000. Occupied by Joseph Consoluzio as dwelling. Loss, $3.75. Insurance, $500. Cause, candle ignited curtain.

Tuesday, May 17, 3.00 P. M. Still Alarm

No. 15 Columbia Street. Owned by Moses P. White. Loss, $20. Insurance, $4,000. Occupied by David Malcolm as dwelling. Loss, $23. Insurance, $1,000. Cause, spark from match on curtain.

Wednesday, May 18, 8.10 P. M. Still Alarm

No. 487 Windsor Street. Owned by Louis Ruben. Loss trifling. Occupied by several families as dwelling. No loss. Cause, electric wire on roof.

Friday, May 20, 3.20 P. M. Still Alarm

No. 45 Brattle Street. Owned and occupied by William Bates as dwelling. No loss. Cause, smoke from furnace.

Tuesday, May 24, 10.20 A. M. Still Alarm

No. 8 Farwell Place. Owned and occupied by Albert August as garage. No loss. Cause, smoke mistaken for fire.

Tuesday, May 24, 4.15 P. M.

Engine No. 4 responded to Box 443, Somerville.

Tuesday, May 24, 6.00 P. M. Still Alarm

Off Garden Street. Owned by John Hurlihy. Cause, pile of manure took fire.

Tuesday, May 24, 8.32 P. M. Box 21

No. 7 Harding Street. Owned by Elizabeth Hayward. No loss. Occupied by Frank Murphy as dwelling. No loss. Cause, burning old bed in yard.

Friday, May 27, 7.29 A. M. Box 51

No. 51 Harvard Square. Owned and occupied by Hugh Nawn as locker. Loss trifling. Cause, putting lighted tobacco pipe in coat pocket.

Friday, May 27, 7.44 P. M. Box 27

No. 58 School Street. Owned by Austin Ford. Loss trifling. Occupied by Ward Coby Co. as wagon shed. No loss. Cause, boys smoking in loft set fire to rubbish.

Friday, May 27, 8.14 P. M. Box 411

No. 259 Prospect Street. Owned and occupied by Lucy Lombard as dwelling. No loss. Cause, reflection from lighting gas with paper mistaken for fire.

Sunday, May 29, 2.51 P. M. Box 434. False Alarm

Monday, May 30, 6.08 P. M. Box 18

No. 165 Charles Street. Owned by Dominic Ferro. Loss, $36. Insurance, $3,000. Occupied by Dominic Ferro as dwelling. Loss, $73. Insurance, $500. Cause, careless leaving fire on bed.

Monday, May 30, 8.50 P. M. Still Alarm

No. 227 Franklin Street. Owned by F. L. Beunke. No loss. Occupied by Edward Young as dwelling. Loss trifling. Cause, straw matting in contact with gas light.

Tuesday, May 31, 4.45 P. M. Box 453

No. 28 Grigg Street. Owned by S. J. Kelly. Loss, $25. Insurance, $3,000. Occupied by Josephine Damery as dwelling. Loss, $20. No insurance. Cause, child set fire in closet. Box 380. Alarm for same fire as from Box 453.

Tuesday, May 31, 5.15 P. M. Still Alarm

Corner York and Hamlin Street. Owned by J. Connell. Loss trifling. Occupied by James Holleran as stable. No loss. Cause, fire outside building from rubbish.

June

Wednesday, June 1, 2.28 P. M. Box 381

Rear 227 Western Avenue. Owned by Laura Burrage. Loss, $10. Insurance, $1,200. Occupied by Carmino Guene as dwelling. Loss, $35. No insurance. Cause, snap match on floor ignited bed.

Wednesday, June 1, 11.30 P. M.

Engine No. 5 responded to Box 26, Somerville.

Thursday, June 2, 8.59 P. M. Box 311

Rear 424 Mass. Avenue. Owned by F. A. Kennedy as locker. No loss. Cause, unknown.

Friday, June 3, 10.23 A. M. Box 71

No. 8 Porter Park. Owned by Brooks and Conley. Loss trifling. Occupied by Leverett Ells as dwelling. Loss, $35. Insurance, $500. Cause, snap match ignited bed.

Friday, June 3, 1.32 P. M. Box 43

No. 888 Mass. Avenue. Owned by Israel Nisson as dwelling. No loss. Cause, smoke from chimney in room.

Tuesday, June 7, 7.59 A. M. Box 65

No. 26 Gray Street. Owned by A. S. K. Clark. Loss, $300. Insurance, $2,500. Occupied by A. S. K. Clark as office and dwelling. Loss, $300. Insurance, $1,000. Cause, mice and matches in office.

Tuesday, June 7, 4.03 P. M. Box 434. False Alarm

Tuesday, June 7, 5.56 P. M. Box 64. False Alarm.

Tuesday, June 7, 7.35 P. M. Box 43

Cause, man calling mail carrier by giving alarm.

Thursday, June 9, 12.49 A. M. Box 251. False Alarm

Thursday, June 9, 10.19 A. M. Box 54

No. 19 Sibley Street. Owned by Lawrence Hews. No loss. Occupied by C. Freeman as dwelling. No loss. Cause, chimney fire.

Thursday, June 9, 11.21 A. M. Box 19

No. 497 Cambridge Street. Owned and occupied by Mary Whorisky as dwelling. Loss, $35. Insurance, $2,500. Cause, hot ashes in barrel against building.

Thursday, June 9, 8.30 P. M. Still Alarm

Sixth Street. Dump fire.

Monday, June 13, 9.26 A. M. Box 25

No. 36 Broadway. Owned by S. W. Tilton. Loss, $40. Insurance, $1,000. Occupied by Mary Dooley as dwelling. Loss, $50. Insurance, $300. Cause, child set fire to rubbish in cellar.

Monday, June 13, 11.55 P. M. Still Alarm

Corner Hastings and Burleigh Street. Owned by W. J. Dooley as unoccupied dwelling. Loss trifling. Cause, incendiary.

Tuesday, June 14, 5.13 A. M. Box 247

No. 60 Hastings Street. Owned by Mary E. Ward as unoccupied dwelling. Loss trifling. Cause incendiary.

Tuesday, June 14, 8.44 P. M. Box 13

No. 138 Bridge Street. Owned by John Ahearn. No loss. Occupied by several families as dwelling. No loss. Cause, chimney fire.

Wednesday, June 15, 12.20 P. M. Box 18

No. 135 Fifth Street. Owned by Augustus Rautenberg. Loss, $91. Insurance, $4,000. Occupied by Augustus Rautenberg as dwelling. Loss, $5. Insurance, $1,000. Cause, rats in partition around chimney.

Wednesday, June 15, 11.32 P. M. Box 61. False Alarm

Thursday, June 16, 11.53 P. M. Box 54. False Alarm

Friday, June 17, 1.55 A. M. Box 341

Off Waverley Street. Owned by B. & A. R. R. as freight car. Loss, $50. Insurance, $1,000. Cause, incendiary.

Friday, June 17, 4.03 A. M. Box 351

Spark on freight car from previous fire.

Friday, June 17, 7.10 A. M. Still Alarm

No. 18 Summer Road. Owned by Charles S. Batchelder. Loss, $341. Insurance, $4,000. Occupied by O. M. W. Sprague as dwelling. Loss trifling. Cause, lighting fire with gasoline.

Monday, June 20, 9.31 P. M. Box 195

No. 147 Gore Street. Owned by J. P. Squire estate. Loss trifling. Occupied by Michael Regan as dwelling. Loss trifling. Cause, candle ignited curtain.

Tuesday, June 21, 9.55 A. M. Box 215

No. 748 Cambridge Street. Owned by Eliot Clark, Agent. Loss, $341.90. Insurance, $34,000. Occupied by John Callahan as dwelling. Loss, $50. No insurance. Cause, child set fire in pantry.

Tuesday, June 21, 8.45 P. M. Box 28

No. 306 Broadway. Owned by John T. Wyman. Loss trifling. Occupied by Fred Thyng as dwelling. Loss, $100. No insurance. Cause, lamp overturned in clothes closet.

Thursday, June 23, 2.18 A. M. Box 471. False alarm

Thursday, June 23, 4.56 P. M. Box 247

No. 98 Washington Street. Owned by Rogers estate. No loss. Occupied by John Fitzgerald as dwelling. No loss. Cause, chimney fire.

Thursday, June 23, 7.57 P. M. Box 21

No. 160 Willow Street. Owned by John Downey. Loss trifling. Occupied by James Barry as dwelling. No loss. Cause, sparks on roof.

Friday, June 24, 10.32 P. M. Box 162

No. 14 Conlan Court. Cause, old bed in yard.

Monday, June 27, 2.50 P. M. Still alarm

Corner Hastings and Burleigh Street. Owned by W. J. Dooley as unoccupied dwelling. Loss trifling. Cause, rubbish under floor set afire by boys.

Monday, June 27, 9.29 P. M. Box 72

No. 2162 Massachusetts Avenue. Owned and occupied by M. A. Stimpson as dwelling. Loss trifling. Fire in basket in shed. Cause unknown.

Tuesday, June 28, 7.46 P. M. Box 94. False alarm

Thursday, June 30, 3.05 A. M. Box 54

No. 213 Mt. Auburn Street. Owned by James Shea. No loss. Occupied by Luke J. Flarrity as dwelling. Loss, $25. No insurance. Cause, child set fire to bed.

Thursday, June 30, 8.00 A. M. Still alarm

Sixth Street. Dump fire.

Thursday, June 30, 4.04 P. M. Box 294

No. 169 Webster Avenue. Owned by G. W. Norton. Loss trifling. Occupied by Lois Proimboin as junk store. No loss. Cause, boys and matches.

Thursday, June 30, 4.33 P. M. Box 31

No. 16 Austin Street. Owned by Samuel Ochs. Loss $800. Insurance, $17,000. Occupied by James F. Larkin as dwelling. Loss, $400. No insurance. Cause, candle set fire to paper on altar.

July

Friday, July 1, 9.16 P. M. Box 453. False alarm

Sunday, July 3, 2.42 A. M. Box 31

No. 25 Sidney Street. Owned by McCoy & Holmes. Loss trifling. Occupied by A. P. White as dwelling. No loss. Cause, careless smoking on tar roof.

Sunday, July 3, 3.15 A. M. Still alarm

No. 110 Broadway. Owned by W. E. Stone et als. Loss, $50. Insurance, $15,000. Occupied by Michael Doherty as dwelling. Loss, $10. No insurance. Cause, smoking in bed.

Sunday, July 3, 8.10 P. M. Still alarm

Rear E. & R. Laundry, Massachusetts Avenue. Dump fire.

Monday, July 4, 2.29 A. M. Box 432

Corner Franklin and Soden Streets. Bonfire in street.

Monday, July 4, 3.43 A. M. Box 291

Corner Cambridge and Windsor Streets. Bonfire in street.

Monday, July 4, 8.38 A. M. Box 381

No. 255 River Street. Owned by Mary Chandler. Loss, $175. Insurance, $2,000. Occupied by Andrew Pentrica as dwelling. No loss. Cause, defect in chimney at roof.

Monday, July 4, 10.40 A. M. Box 61

No. 4 Magnolia Avenue. Owned by Eugene Gormley. Loss, $20. Insurance, $2,500. Occupied by F. I. Tasker as bakery. Loss, $15. Insurance, $750. Cause, fireworks on awning.

Monday, July 4, 10.45 A. M. Still alarm

No. 10 Central Square. Owned by J. A. Holmes. No loss. Cause, fireworks in rubbish in yard.

Monday, July 4, 6.15 P. M.

Engine No. 5 responded to Box 23, Somerville.

Monday, July 4, 7.52 P. M. Box 14

No. 38 Spring Street. Owned by Edward Dennison. No loss. Occupied by Thomas Grady as dwelling. No loss. Cause, chimney fire.

Tuesday, July 5, 12.33 P. M. Box 75

Rindge Avenue Cemetery. Grass fire.

Wednesday, July 6, 2.30 P. M. Still alarm.

No. 10 Sidney Street. Owned by Thomas Whittemore. Loss trifling. Occupied by A. J. Buck as dwelling. No loss. Cause, hot ashes in barrel against building.

Thursday, July 7, 10.05 A. M. Box 51

Harvard Square subway. Gas pipe took fire.

Thursday, July 7, 6.40 P. M. Still alarm

No. 291 Cambridge Street. Owned by George T. Wentworth. Loss trifling. Occupied by J. W. Skoog as dwelling. No loss. Cause, sparks from chimney on roof.

Friday, July 8, 11.28 A. M. Box 453

No. 26 Elm Street. Owned by L. Yarram. Loss trifling. Unoccupied dwelling. Cause, boys set fire to couch in yard.

Friday, July 8, 2.52 P. M. Box 79

No. 2450 Massachusetts Avenue. Owned by Clark Bros. Occupied by A. W. Ganong as blacksmith. No fire. Cause, setting wheel tire in yard.

Saturday, July 9, 5.21 A. M. Box 247

No. 24 Burleigh Street. Owned by Vincent Planchard. Loss, $250. Insurance, $500. Occupied by Mickschon as dwelling. Unable to find Mickschon. Cause, incendiary.

Saturday, July 9, 11.34 P. M. Box 13. False alarm

Monday, July 11, 9.29 A. M. Box 291

Tuesday, July 12, 6.00 A. M.

Ladder No. 2 responded to Box 21, Somerville.

Tuesday, July 12, 3.51 P. M. Box 233

No. 139 Harvard Street. Owned by Hanna White. No loss. Cause, ash barrel in yard.

Wednesday, July 13, 1.45 P. M. Still alarm

No. 1269 Cambridge Street. Owned by M. J. Harty. Loss, $25. Insurance, $6,000. Occupied by John Stingro as dwelling. Loss, $15. No insurance. Cause, curtain set fire by careless smoking.

Wednesday, July 13, 12.50 P. M. Still alarm

No. 13 Blanche Street. Owned by Thomas Whittemore. No loss. Occupied by Carl Ericson as dwelling. No loss. Cause, chimney fire.

Thursday, July 14, 11.11 A. M. Box 282

No. 97 Pine Street. Owned by Asa Lamson. Loss trifling. Occupied by Henry C. Parker as dwelling. Loss trifling. Cause, bed set afire by children.

Thursday, July 14, 1.37 P. M. Box 137

Rubbish in yard B. & M. R. R.

Thursday, July 14, 1.30 P. M. Still alarm

Central Square. Owned by Hugh Nawn as derrick. Loss trifling. Cause, crossed electric wires.

Friday, July 15, 9.20 A. M. Still alarm

No. 101 Aberdeen Avenue. Owned by L. Steinhart. No fire. Cause, gas heater exploded.

Friday, July 15, 3.00 P. M. Still alarm

No. 273 Portland Street. Owned by George McNeil as unoccupied stable. Loss trifling. Cause, boys playing with matches.

Friday, July 15, 4.00 P. M. Still alarm

Granite Street. Grass fire.

Saturday, July 16, 2.45 P. M. Still alarm.

Otis Street. Owned by J. H. Gerlash Company. Oily waste in passage.

Tuesday, July 19, 10.15 A. M.

Accidental automatic alarm from Joseph Josephs Company.

Tuesday, July 19, 9.52 P. M. Box 134

No. 21 Thorndike Street. Owned by Irving & Casson. No loss. Occupied by Joseph Josephs Company as storage. Loss trifling. Cause, spontaneous in bale of waste.

Wednesday, July 20, 1.41 P. M. Box 13

No. 143 Cambridge Street. Owned and occupied by Israel Goldman as junk store. No fire.

Thursday, July 21, 12.03 P. M. Still alarm

No. 101 Gore Street. Owned by Warren M. Bird. Loss trifling. Cause, sparks on roof.

Thursday, July 21, 2.55 P. M. Still alarm

Albany and Erie Streets. Grass fire.

Thursday, July 21, 6.03 P. M. Box 126

No. 24 Fourth Street. Owned by William H. Cairns as dwelling. No loss. Cause, chimney fire.

Thursday, July 21, 8.39 P. M. Box 233

No. 94 Clark Street. Owned and occupied by Mary E. Miller as dwelling. Loss, $10. No insurance. Cause, cleaning bed with naphtha.

Friday, July 22, 11.15 A. M. Still alarm

Albany and Erie Streets. Grass fire.

Friday, July 22, 3.30 P. M. Still alarm

Albany and Massachusetts Avenue. Dump fire.

Friday, July 22, 4.50 P. M. Still alarm

Charles, near First Street. Owned by F. L. Goldsmith as lumber shed. Loss trifling. Cause, boys playing with matches.

Sunday, July 24, 3.16 P. M. Box 681

Off Walden Street. Owned by John Hurlihy as manure pile. Loss trifling. Cause, set afire by boys. Box 682 alarm for same as from Box 681.

Sunday, July 24, 7.00 P. M. Still alarm

No. 220 Portland Street. Owned by John C. Dow. Loss trifling. Fire in soft coal.

Sunday, July 24, 11.59 P. M. Box 346

No. 90 Brookline Street. Owned by J. W. Coleran as bakery. Cause, smoke from oven mistaken for fire.

Monday, July 25, 6.35 A. M. Box 34

Bell Court. Owned by Thomas O'Hara. Loss, $1,400. Insurance, $1,500. Occupied by Thomas O'Hara as stable. Loss, $200. Insurance, $800. Cause, careless smoking.

Monday, July 25, 2.45 P. M. Still alarm

Corner Baldwin and Cambridge Streets. Grass fire.

Monday, July 25, 3.22 P. M. Still alarm

No. 28 Burleigh Street. Owned by Harry Gintz. Loss trifling. Occupied by several families as dwelling. No loss. Cause, children set fire to rubbish on piazza.

Monday, July 25, 8.24 P. M. Box 434

No. 18 Bay Street. Owned by J. T. O'Brien. Loss, $20. Insurance, $1,500. Occupied by Edward Real as dwelling. Loss trifling. Cause, careless dropping match in closet.

Tuesday, July 26, 8.29 A. M. Box 292

Cambridge Street. Owned and occupied by Purity Spirit Company as distillery. Loss trifling. Cause, overheated furnaces ignited dust under roof.

Tuesday, July 26, 1.15 P. M. Still alarm

Fairfield Street. Brush fire.

Tuesday, July 26, 2.43 P. M. Box 245

No. 12 Jordan Place. Owned by Harry Finestein. Loss, $140. Insurance, $3,500. Occupied by Annie Goldstein as dwelling. Loss, $520. Insurance, $1,000. Cause, children playing with matches in clothes closet.

Tuesday, July 26, 6.25 P. M. Box 215

No. 12 Marion Street. Owned by T. W. Eunison. Loss trifling. Occupied by Toney Butaciez as dwelling. Loss trifling. Cause, curtain set afire from snap match.

Tuesday, July 26, 8.07 P. M. Box 29

No. 339 Norfolk Street. Owned by James Callinan as unoccupied dwelling. Loss, $10. Insurance, $1,000. Cause, painters working on floors upset oil lamp.

Wednesday, July 27, 10.36 A. M. Box 284

Austin Street. Owned by Third Unitarian Church Society. Loss, $5,153.55. Insurance, $9,600. Occupied by Church Society as church. Loss, $1,214.30. Insurance, $2,400. Cause, careless use of fire by workmen. Second alarm 10.43 A. M.

Wednesday, July 27, 2.00 P. M. Still alarm

Albany Street. Grass fire.

Wednesday, July 27, 3.28 P. M. Box 16

No. 126 Charles Street. Owned by H. W. Anable. Loss, $25. No insurance. Occupied by Albert Rau as storage. Loss, $40. No insurance. Cause, sparks on roof.

Wednesday, July 27, 4.57 P. M. Still alarm

No. 115 Mt. Auburn Street. Owned by A. Crowell. Loss, $166. Insurance, $51,000. Occupied by E. W. Thompson as dormitory. No loss. Cause, spontaneous in oily rags.

August

Monday, August 1, 4.39 P. M. Box 311

Green Street. Owned and occupied by Hugh Nawn as a lantern locker. Loss, $175. No insurance. Cause, lantern exploded setting fire to oil. Box 31 alarm for same fire as from Box 311.

Wednesday, August 3, 4.58 P. M. Box 27

No. 8 Harrison Street. Owned by James E. Burke as dwelling. Loss trifling. Cause, sparks on roof.

Thursday, August 4, 1.25 P. M. Box 381

No. 203 Western Avenue. Owned by A. J. Bennett. Loss, $20. Insurance, $4,000. Occupied by Samuel Barrow as grocery. Loss, $48. Insurance, $1,000. Cause, snap match on floor set fire to paper.

Friday, August 5, 4.03 P. M. Box 434

No. 476 Franklin Street. Owned by Eugene Brennan. Loss trifling. Occupied by Joseph Gaynor as dwelling. Loss trifling. Cause, child set fire to bed.

Saturday, August 6, 7.18 A. M. Box 42

No. 26 Lee Street. Owned by Moses P. White. Loss, $77.25. Insurance, $2,500. Occupied by R. J. Lumsden as dwelling. Loss, $30. No insurance. Cause, careless throwing fire in waste basket.

Box 43. Alarm for same fire as from Box 42.

Saturday, August 6, 7.35 P. M. Box 7

No. 30 Porter Road. Owned by B. McDermott as automobile. Loss trifling. Cause, unknown.

Sunday, August 7, 4.35 P. M. Still alarm

Fourth Street. Owned and occupied by Archbishop O'Connell as church. Loss, $25. Insurance, $15,000. Cause, supposed boys playing with matches in basement.

Sunday, August 7, 5.13 P. M. Box 295

No. 107 Hampshire Street. Owned by Elenora Thornton. Loss trifling. Occupied by J. W. Sanford as dwelling. Loss trifling. Cause, oil stove took fire.

Tuesday, August 9, 7.00 P. M.

Engines No. 3 and No. 7 sent to Boston on call.

Wednesday, August 10, 12.20 P. M.

Engine No. 5 responded to Box 42, Somerville.

Sunday, August 14, 9.30 P. M. Box 79

No. 16 Harvey Street. Owned by Richard Gagne as unoccupied shed. Loss, $25. No insurance. Cause, set afire by boys. Box 741 alarm for same fire as from Box 79.

No. 8 Wilber Street. Owned and occupied by G. Mooney as stable. Loss, $35. No insurance. Cause, exposure from No. 16 Harvey Street.

Saturday, August 20, 9.35 A. M. Still alarm

No. 55 Magazine Street. Owned by A. J. Barnard. Loss trifling. Occupied by A. J. Brown as dwelling. Loss trifling. Cause, flatiron holder in drawer.

Saturday, August 20, 3.12 P. M. Box 67

No. 77 Huron Avenue. Owned by D. J. O'Brien. Loss, $127. Insurance, $6,700. Occupied by several families. No loss. Cause, children set fire under porch.

Sunday, August 21, 5.30 P. M. Still alarm

No. 7 Mullen Court. Owned by Mullen heirs. No loss. Occupied by Frank Macjewski as dwelling. No loss. Cause, oil stove took fire.

Sunday, August 21, 6.57 P. M. Box 28

Harvard Street. Rubbish on vacant land.

Sunday, August 21, 9.40 P. M. Box 26. False alarm

Monday, August 22, 2.35 A. M. Still alarm

No. 2384 Massachusetts Avenue. Owned by John F. O'Brien. Loss, $25. Insurance, $1,800. Occupied by Patrick Curtin. No loss. Cause, careless throwing fire on roof.

Wednesday, August 24, 8.07 P. M. Box 12

No. 57 Gore Street. Owned by John Long. No loss. Cause, rubbish in yard set afire by boys.

Thursday, August 25, 9.15 A. M. Still alarm

No. 21 Thorndike Street. Owned by Irving & Casson. Loss trifling. Occupied by Joseph Josephs Co. as cotton storage. Loss trifling. Cause, spontaneous in cotton waste.

Thursday, August 25, 1.00 P. M. Still alarm

No. 17 South Street. Owned by W. J. McGowan heirs. Loss, $40. Insurance, $1,000. Occupied by T. W. McGowan as dwelling. Loss, $15. No insurance. Cause, oil stove took fire.

Thursday, August 25, 8.45 P. M. Still alarm

No. 203 Massachusetts Avenue. Owned and occupied by E. & R. Laundry. Cause, reflection of gas light mistaken for fire.

Saturday, August 27, 3.41 P. M. Box 291

No. 987 Cambridge Street. Owned by Lois Ruben. Loss, $40. Insurance, $6,000. Occupied by Celia Linkofsky as dwelling. Loss, $75. Insurance, $500. Cause, unknown.

Saturday, August 27, 4.48 P. M. Box 247

Off Portland Street. Owned and occupied by Hugh Nawn as locker. Loss, trifling. Cause, lantern set fire to oil.

Monday, August 29, 9.44 P. M. Box 23

Croston Street. Owned by Croston & Curtis as furniture van. Loss, $100. Insurance, $3,500. Cause, careless dropping fire in bags.

Tuesday, August 30, 2.58 A. M. Box 351

No. 629-635 Putnam Avenue. Owned by Edmond Reardon. Loss, $3,800. Insurance, $8,000. Occupied by Vito Damiano as dwelling. Loss, $100. No insurance. Occupied by Catherine Munroe. Loss, $100. No insurance. Occupied by Arthur O'Leary. Loss, $100. No insurance. Occupied by Patrick D. Shea. Loss, $100. No insurance. Occupied by Silva Tourilla. No loss. Occupied by Angelo Trodella. No loss. Occupied by Bazil Mating. Loss, $10. No insurance. Occupied by Helen Hickey. No loss. Occupied by William Murphy. No loss. Occupied by Mary Hill. Loss, $50. No insurance. Cause, rats and matches in partition. Box 34 alarm for same fire as from Box 351.

Tuesday, August 30, 7.50 P. M. Still alarm

No. 1516 Massachusetts Avenue. Owned and occupied by O. F. Kimball as dwelling. No loss. Cause, chimney fire.

September

Friday, September 2, 10.44 A. M. Box 291

No. 1121 Cambridge Street. Owned by J. P. Squires estate. No loss. Occupied by Jennie Pillit as dry goods store. Loss, trifling. Cause, gas light ignited goods.

Saturday, September 3, 5.44 P. M. Box 29

No. 1205 Cambridge Street. Owned by Monahan & Co. No loss. Occupied by Bessie Aron. Loss, trifling. Cause, unknown. Fire in money drawer.

Sunday, September 4, 10.00 P. M. Still alarm

Rear 438 Massachusetts Avenue. Hot ashes in barrel.

Tuesday, September 6, 5.02 A. M. Box 625

No. 14 Eustis Street. Owned by Stearns Ellis. Loss, trifling. Occupied by F. W. Hilliar as garage. Loss, trifling. Cause, careless dropping match.

Wednesday, September 7, 3.45 A. M. Still alarm

Mt. Auburn Street. Owned and occupied by Boston Elevated R. R. No loss. Cause, crossed electric wires in car barn.

Saturday, September 10, 6.45 P. M. Box 453. False alarm

Sunday, September 11, 8.38 P. M. Still alarm

No. 138 Brattle Street. Owned by Le Barron R. Briggs. No loss. Occupied by E. A. Darling as dwelling. No loss. Cause, chimney fire.

Monday, September 12, 5.05 P. M. Still alarm

No. 8 Gerry Street. Owned and occupied by John Shaw as dwelling. No loss. Cause, chimney fire.

Tuesday, September 13, 7.30 P. M. Still alarm

Irving Street. Owned and occupied by City of Cambridge as training school. No loss. Cause, oily waste took fire from electric motor.

Wednesday, September 14, 4.40 P. M. Box 79

No. 48 Norris Street. Owned by C. F. Hall. No loss. Occupied by William Lamson as dwelling. No loss. Cause, food boiling over on stove.

Wednesday, September 14, 7.30 P. M. Box 291

No. 1070 Cambridge Street. Owned by John S. Meserve. Loss, $15. Insurance, $12,000. Occupied by W. F. Carroll as dwelling. Loss, $10. No insurance. Cause, careless dropping match on bed.

Thursday, September 15, 10.12 A. M. Box 372

No. 43 Blackstone Street. Owned by James Lennon. No loss. Occupied by John Jackson as dwelling. Loss, $50. No insurance. Cause, child set fire to bed.

Thursday, September 15, 2.38 P. M. Box 21

Rear 883 Cambridge Street. Owned by Daniel Cronin. Loss, $600. Insurance, $600. Occupied by Daniel Cronin as stable. Loss, $100. No insurance. Cause, smoking. No. 883 Cambridge Street. Owned by Daniel Cronin as dwelling. Loss, $50. Insurance, $1,100. Cause, exposure from stable fire.

Thursday, September 15, 5.35 P. M. Still alarm

No. 77 Berkshire Street. Owned by M. H. Dervin. Loss, $45. Insurance, $4,000. Occupied by J. Watts as dwelling. Loss, $50. Insurance, $500. Cause, child set fire to bed.

Thursday, September 15, 7.10 P. M. Still alarm

No. 1147 Cambridge Street. Owned by Peter Smith. Loss, $50. Insurance, $1,000. Occupied by Nicholas Maveric as fruit store. No loss. Cause, fire outside building set by boys.

Friday, September 16, 10.53 A. M. Box 21

No. 871 Cambridge Street. Owned by Pasqualle Lunazo. No loss. Occupied by Herman Simons as dwelling. No loss. Cause, wood drying in stove oven.

Saturday, September 17, 6.49 P. M. Box 191

Ninth Street R. R. Yard. Owned by B. & A. R. R. as freight car. Loss, $150. Insurance, $150. Occupied by Hosmer & Robinson for hay. Loss, $165. Insurance, $165. Cause, sparks from locomotive.

Tuesday, September 20, 6.55 P. M. Still alarm

Inman Square. Cause, electric car.

Tuesday, September 20, 10.30 P. M. Still alarm

No. 253 Hampshire Street. Owned by W. R. Edwards. Loss, $370. Insurance, $4,000. Occupied by Jennie Glass as fruit store. Loss, $621.11. Insurance, $800. Cause, careless dropping fire on floor.

Wednesday, September 21, 11.50 A. M. Box 282

No. 132 Pine Street. Owned by Whittemore estate. Loss trifling. Occupied by Alfred Blanchard as dwelling. No loss. Cause, paper in stove pipe hole took fire and dropped on floor.

Wednesday, September 21, 9.12 P. M. Box 421

No. 37 Inman Street. Owned by Frances Dolan. Loss, $75. Insurance, $3,000. Occupied by M. E. Bunce as dwelling. Loss, $55. Insurance, $500. Cause, lamp set fire to curtain.

Thursday, September 22, 3.58 P. M. Box 391

No. 14½ Cottage Street. Owned by R. M. Dunn as dwelling. Loss, $25. Insurance, $1,500. Cause, sparks from chimney on roof.

Saturday, September 24, 6.30 P. M. Still alarm

No. 9 Pleasant Street. Owned by E. Spencer. Loss, trifling. Occupied by S. Weld as dwelling. No loss. Cause, gas light against wall.

Saturday, September 24, 11.59 P. M. Box 411

No. 237 Prospect Street. Owned by L. L. Tower. Loss, trifling. Occupied by K. A. Dwyer as dwelling. Loss, trifling. Cause, lamp fell from shelf in bath room.

Sunday, September 25, 12.14 A. M. Box 493. False alarm

Monday, September 26, 5.45 P. M. Still alarm

No. 61 Spark Street. Owned by Brewster estate. Loss, trifling. Occupied by C. H. Gorham as dwelling. Loss, trifling. Cause, gas light against curtain.

Monday, September 26, 6.40 P. M. Box 124. False alarm

Tuesday, September 27, 7.00 P. M. Still alarm

No. 11 Carlisle Street. Owned by J. W. Coveney estate. No loss. Occupied by John Kneeland as dwelling. No loss. Cause, soot from chimney on cellar floor.

Wednesday, September 28, 9.00 P. M.

Accidental automatic alarm from Kennedy's.

Thursday, September 29, 6.00 A. M. Still alarm

Albany Street. Owned by Endicott estate. Unoccupied. Cause, fire thrown through open window onto floor.

Thursday, September 29, 6.41 P. M. Box 79

No. 20 Dudley Street. Owned by R. G. Grogan. Loss, $62. Insurance, $4,000. Occupied by John Mahoney as dwelling. Loss, $10. No insurance. Cause, snap match on curtain.

Thursday, September 29, 5.55 P. M. Still alarm

Central Square. City Building. Loss, trifling. Cause, careless dropping match in janitor's closet.

Friday, September 30, 9.40 P. M. Still alarm

No. 5 Eighth Street. Owned by F. Hart. No loss. Occupied by John Dwyer as dwelling. No loss. Cause, chimney fire.

October

Saturday, October 1, 1.24 P. M. Box 247

No. 13 Washington Street. Owned by Bush estate. Loss, $120. Insurance, $1,800. Occupied by Fred Williams as dwelling. Loss, $82.96. Insurance, $400. Cause, incendiary.

Saturday, October 1, 2.50 P. M. Box 94

Off Bird Street. Grass fire.

Saturday, October 1, 5.41 P. M. Box 18

No. 105 Fourth Street. Owned by Mary McGowan. No loss. Occupied by several families. No loss. Cause, chimney fire.

Saturday, October 1, 10.34 P. M. Box 39

No. 111 Austin Street. Owned by B. Nyman. Loss, $9.50. Insurance, $2,500. Occupied by B. Nyman as dwelling. Loss, $9. Insurance, $1,000. Cause, gas light ignited curtain.

Monday, October 3, 8.58 A. M. Box 291

No. 1025 Cambridge Street. Owned by John P. Squires estate. No loss. Cause, boys set fire to broom on fire escape.

Monday, October 3, 9.25 P. M. Still alarm

No. 9 Eliot Street. Owned by Delaney & O'Hara. Loss, $50. Insurance, $1,000. Occupied by Louis Cohen as furniture store. Loss, $488. Insurance, $1,650. Cause, oily rags in hair.

Tuesday, October 4, 12.05 A. M. Still alarm

Mt. Auburn Street. Owned by Boston Taxicab Co. as an automobile. Loss, $25. Insurance, $2,200. Cause, gasolene tank took fire.

Tuesday, October 4, 10.15 A. M. Still alarm

Accidental automatic alarm from Joseph Josephs Co.

Wednesday, October 5, 3.45 P. M. Box 72

No. 3 Warwick Street. Owned by James Penney. No loss. Occupied by George Meserve as dwelling. No loss. Cause, food on stove.

Wednesday, October 5, 5.16 P. M. Box 39

Prospect Street. Electric street car afire.

Thursday, October 6, 4.20 P. M. Box 14

No. 205 Vine Street. Owned by Manuel P. Rogers. Loss, $125. Insurance, $1,000. Occupied by Manuel Faria as dwelling. Loss, $30. No insurance. Cause, oil stove took fire.

Thursday, October 6, 6.24 P. M. Box 681

No. 18 Crescent Avenue. Owned and occupied by F. P. Lombard as automobile repair shop. Loss, $35. No insurance. Cause, careless dropping fire in rubbish.

Thursday, October 6, 11.45 P. M. Still alarm

Landsdown Street. Dump fire.

Saturday, October 8, 10.47 A. M. Box 153

Third Street. Owned and occupied by Cambridge Gas Light Co. as retort house. Loss, trifling. Cause, coal dust took fire from retort.

Saturday, October 8, 2.20 P. M. Still alarm

No. 11 Sargent Street. Owned and occupied by Thomas R. Nevins as dwelling. No loss. Cause, chimney fire.

Saturday, October 8, 6.35 P. M. Still alarm

Sixth Street. Dump fire.

Monday, October 10, 3.39 P. M. Box 23

No. 38 Bristol Street. Owned by Margaret Cooper. Loss, $15. Insurance, $400. Occupied by Margaret Cooper as dwelling. Loss, $25. No insurance. Cause, child set fire to couch.

Tuesday, October 11, 12.25 P. M. Still alarm

No. 764 Main Street. Owned by Agnes Winn. Loss, trifling. Occupied by Henry Sampson as dwelling. Loss, trifling. Cause, careless dropping fire in bed.

Tuesday, October 11, 5.20 P. M. Still alarm

Ames Street. Grass fire.

Tuesday, October 11, 6.38 P. M. Box 492. False alarm

Wednesday, October 12, 11.05 A. M. Still alarm

Park Road. Grass fire.

Thursday, October 13, 12.57 P. M.

Ladder No. 2 responded to Box 23, Somerville.

Thursday, October 13, 8.50 P. M. Still alarm

No. 26 Regent Street. Owned and occupied by Frank Burke as blacksmith shop. Loss, $55. Insurance, $950. Cause, hot ashes from forge on floor.

Friday, October 14, 2.20 A. M. Still alarm

Sidney and Pilgrim Streets. Owned by Morss & Co. Loss trifling. Pile of lumber. Cause, unknown.

Friday, October 14, 5.50 P. M. Still alarm

Fresh Pond Park. Grass fire.

Friday, October 14, 11.20 P. M. Box 37

Putnam Avenue. Unoccupied blacksmith shop. Owner unknown. Fire in rubbish. No loss. Cause, supposed throwing cigar stub through broken window.

Saturday, October 15, 9.30 A. M. Still alarm

No. 9 Story Street. Owned by Barksdale Macbeth. Loss, $250. Insurance, $4,500. Occupied by B. Macbeth as dwelling. Loss, $100. Insurance, $2,000. Cause, child set fire to curtain.

Saturday, October 15, 8.40 P. M. Box 27

No. 15 Moore Street. Owned by Rogers estate. Loss trifling. Occupied by Robert Lincoln as dwelling. Loss trifling. Cause, child overturned lamp.

Sunday, October 16, 6.55 P. M.

Engine No. 5 responded to Box 219, Somerville.

Monday, October 17, 12.30 P. M. Still Alarm

Off Bird Street. Grass fire.

Monday, October 17, 3.03 P. M. Box 51

No. 1362 Massachusetts Avenue. Owned by John Little estate. No loss. Occupied by L. N. Brock as hardware store. Loss trifling. Cause, careless dropping match in oakum.

Tuesday, October 18, 9.40 P. M. Still Alarm

Magazine Street. Grass fire.

Thursday, October 20, 5.06 P. M. Box 134. False Alarm

Friday, October 21, 1.00 P. M. Still Alarm

Metropolitan Park. Tree fire.

Saturday, October 22, 12.51 P. M. Box 25

Potter Street. Owned by Warren Brothers as asphalt works. Loss, $1,576. Insurance, $1,576. Cause, boiler of tar overflowed, taking fire.

Boxes 176 and 16. Alarm for same fire as from Box 25

Saturday, October 22, 3.33 P. M. Box 247

No. 9 Burleigh Street. Owned by Rogers estate. No loss. Occupied by Joseph Provelaitis as dwelling. No loss. Cause, meat burning on stove.

Saturday, October 22, 8.35 P. M. Box 78

Cottage Park Avenue. Owned by Climax Box Co. No loss. Occupied by Climax Box Co. Loss, $300. Insurance, $23,000. Cause, careless dropping match in boxes.

Saturday, October 22, 10.31 P. M. Box 215

No. 8 Jefferson Street. Cause, men fighting, mistaken for fire.

Sunday, October 23, 2.45 A. M.

Ladder No. 2 responded to Box 21, Somerville.

Sunday, October 23, 6.55 A. M. Box 351

No. 297 Allston Street. Owned by John Brandon. Loss, trifling. Occupied by Benjamin Robinson as dwelling. No loss. Cause, lamp overturned on stairs.

Sunday, October 23, 4.21 P. M.

Engine No. 3 responded to Box 121, Somerville.

Sunday, October 23, 5.50 P. M. Box 421

No. 31 Inman Street. Owned by L. M. Hannum. No loss. Occupied by Ida Eisanhayaer as dwelling. No loss. Cause, chimney fire.

Monday, October 24, 9.31 A. M. Box 29

No. 345 Norfolk Street. Owned by J. Wright. No loss. Occupied by J. R. Mooney as dwelling. No loss. Cause, meat burning on stove.

Tuesday, October 25, 8.00 P. M. Box 291

No. 934 Cambridge Street. Owned by Lois Levey as unoccupied dwelling. Loss, $706.50. Insurance, $7,000. Cause, unknown. Fire in cellar in rubbish. Alarm from Box 21 for same fire as from Box 291.

Tuesday, October 25, 9.25 P. M. Still Alarm

No. 1285 Massachusetts Avenue. Owned by Cambridge Gas Light Co. No fire. Cause, smoke from furnace.

Wednesday, October 26, 3.15 P. M. Still Alarm

No. 76 Fifth Street. Owned by Thomas Mullen. No loss. Occupied by Patrick Mangan as dwelling. No loss. Cause, pot of meat on stove.

Wednesday, October 26, 10.57 P. M. Box 21

No. 811 Cambridge Street. Owned by Thomas Gannan. Loss, $25. No insurance. Occupied by George Clark as lunch room. No loss. Cause, electric wires in loft.

Thursday, October 27, 12.12 A. M. Still Alarm

No. 15 Locust Street. Owned by Thomas Kilroy. No loss. Occupied by Octave Demars as dwelling. No loss. Cause, chimney fire.

Thursday, October 27, 10.30 A. M. Still Alarm

No. 59 Gore Street. Owned and occupied by J. F. Fonseca as dwelling. No loss. Cause, chimney fire.

Thursday, October 27, 4.55 P. M. Still Alarm

Waverly Street. Grass fire.

Friday, October 28, 2.45 P. M.

Engine No. 5 responded to Box 219, Somerville.

Saturday, October 29, 11.32 A. M. Box 195

No. 19 Squires Place. Owned by J. P. Squires estate. No loss. Occupied by Eva Hughes as dwelling. Loss trifling. Cause, child set fire to rags on floor.

Saturday, October 29, 1.00 P. M. Still Alarm

No. 357 Green Street. Owned and occupied by J. H. Dwyer as dwelling. No loss. Cause, kettle of fat on stove.

Saturday, October 29, 5.11 P. M. Box 291

No. 457 Windsor Street. Owned and occupied by John Andleman as junk shop. No loss. Cause, smoke from chimney in room.

Sunday, October 30, 4.09 P. M. Still Alarm

No. 145 Brattle Street. Owned and occupied by William Brewster as dwelling. No loss. Cause, chimney fire.

Monday, October 31, 10.25 A. M. Still Alarm

No. 19 Highland Street. Owned and occupied by W. E. Saul as dwelling. No loss. Cause, painter's torch.

Monday, October 31, 9.32 P. M. Box 78

Massachusetts Avenue and Cottage Park. No fire. Cause, lantern in ditch.

November

Tuesday, November 1, 8.55 A. M. Still Alarm

No. 783 Cambridge Street. Owned by David Marshall. Occupied by Alice Delay as millinery store. No fire. Cause, smoke from chimney in room.

Wednesday, November 2, 12.09 A. M. Box 31

No. 885 Main Street. Owned by Phillips Bros. Loss, $10. Insurance, $2,200. Occupied by J. W. Forsyth as provision store. No loss. Cause, careless throwing fire on awning.

Wednesday, November 2, 9.15 A. M. Still Alarm

No. 7 Porter Park. Owned by Brooks and Conley. Loss, $75. Insurance, $2,500. Occupied by John D. Thompson as dwelling. Loss, $117.50. Insurance, $500. Cause, careless leaving fire in clothes closet.

Wednesday, November 2, 10.05 A. M.

Accidental automatic from Riverside Press.

Thursday, November 3, 2.03 P. M. Box 233

No. 142 Harvard Street. Owned by S. J. Davis. Loss, trifling. Occupied by R. E. Ward as dwelling. Loss, $15. No insurance. Cause, child set fire to bed.

Monday, November 7, 12.39 A. M. Box 434

No. 33 Bay Street. Owned by James O'Brien. Loss, $50. Insurance. $4,000. Occupied by William Barry as dwelling. Loss, $43.10. Insurance, $1,000. Cause, smoking pipe in bed.

Monday, November 7, 8.54 P. M. Box 71

No. 19 Davenport Street. Owned by F. W. Bartlett. Loss, $525. Insurance, $4,000. Occupied by F. W. Bartlett as dwelling. Loss, $100. Insurance, $1,000. Cause, careless throwing match into clothes basket.

Wednesday, November 9, 1.45 P. M. Box 323

Erie and Pacific Streets. Owned by Prest O Light Co. Loss, $250. No insurance. Occupied by Prest O Light Co. as gas manufactory. Loss, $600. No insurance. Cause, unknown.

Wednesday, November 9, 9.09 P. M. Box 196

Fire in North's provision building, Somerville.

Friday, November 11, 4.45 P. M. Still Alarm

Cor. Cambridge and Second streets. Rubbish fire.

Friday, November 11, 6.30 P. M.

Ladder Co. No. 2 responded to Somerville Box 21.

Monday, November 14, 12.08 A. M. Box 351

No. 10 Magazine Court. Owned by Samuel F. M. Arthur. Loss, $1,217. Insurance, $2,500. Occupied by S. F. M. Arthur as dwelling. Loss, $900. Insurance, $1,500. Originated in kitchen closet. Suspected incendiary.

Monday, November 14, 6.55 P. M.

Ladder Co. No. 2 responded to Somerville Box 21.

Tuesday, November 15, 11.25 P. M. Box 13

East Street. Owned by B. & M. R. R. as pile driving car. Loss, $41. Insurance, $2,000. Cause, oily waste took fire.

Friday, November 18, 6.30 P. M. Still Alarm

No. 1 Second Street. Owned by T. J. McElroy. Loss, $25. Insurance, $2,500. Occupied by Eldridge Ice Co. No loss. Cause, defect in gas meter, causing explosion.

Saturday, November 19, 9.07 A. M. Box 31

No. 415 Massachusetts Avenue. Owned by Callander estate. Loss, $373. Insurance, $3,000. Occupied by John T. Webster as dry goods store. Loss, $1,860. Insurance, $6,200. Cause, careless dropping lighted match in goods.

Saturday, November 19, 1.42 P. M. Box 212

No. 46 Warren Street. Owned by Mary Magui e. No loss. Occupied by Stephen Caesar as dwelling. No loss. Cause, food burning on stove.

Box 215. Alarm for same cause as from Box 212.

Saturday, November 19, 6.13 P. M. Still Alarm

No. 115 Brattle Street. Smoke from automobile.

Sunday, November 20, 8.55 A. M. Still Alarm

No. 14 Park Street. Owned and occupied by C. F. Brown as dwelling. Loss, $30. Insurance, $1,200. Cause, defect in chimney at roof.

Sunday, November 20, 5.15 P. M.

Engine Co. No. 3 responded to Somerville Box 121.

Sunday, November 20, 5.50 P. M. Still Alarm

No. 145 Brattle Street. Owned by Brewster estate. Rubbish.

Sunday, November 20, 10.14 P. M. Box 191

No. 168 Thorndike Street. Owned and occupied by Hanna Doody as dwelling. No loss. Cause, oily rag thrown into gutter on house.

Monday, November 21, 6.13 A. M. Box 48

Steam from pipe on Memorial Hall.

Monday, November 21, 5.10 P. M. Box 295

No. 43 Union Street. Owned by Myer Gross. Loss, $5. No insurance. Cause, hot ashes in box in yard.

Box 294. Alarm for same cause as from Box 295.

Monday, November 21, 5.27 P. M. Still Alarm

No. 62 Hampshire Street. Owned and occupied by Boston Confectionery Co. as box factory. No loss. Cause, defect in electric wires.

Wednesday, November 23, 4.45 P. M.

Engine Co. No. 5 responded to Somerville Box 26.

Wednesday, November 23, 7.10 P. M. Box 311

No. 440 Massachusetts Avenue. Rubbish in yard.

Wednesday, November 23, 8.44 P. M. Box 54

No. 19 Bradbury Street. Owned by George Blakey. No loss. Occupied by several families as dwelling. No loss. Cause, chimney fire.

Thursday, November 24, 5.55 A. M.

Ladder Co. No. 2 responded to Somerville Box 21.

Thursday, November 24, 8.45 P. M. Still Alarm

No. 137 Green Street. Owned by Kennedy estate. Loss trifling. Occupied by Michael Hopkins as stable. Loss, trifling. Cause, careless smcking in hay loft.

Friday, November 25, 2.13 P. M. Box 293

No. 167 Hampshire Street. Owned by James Mathews. No loss. Occupied by Herbert Keith as dwelling. No loss. Cause, smoke from stove.

Saturday, November 26, 2.05 A. M. Still Alarm

Binney Street. Rubbish in car on B. & A. R. R.

Monday, November 27, 6.23 P. M. Box 23

No. 30 Portsmouth Street. Owned by Marklin Fretis. Loss, $240. Insurance, $4,000. Occupied by Israel Wine as dwelling. Loss, $150. Insurance, $800. Cause, children playing with matches in bedroom.

Monday, November 27, 6.34 P. M. Box 12

No. 17 Winter Street. Owned by Catherine Whorisky. Loss, $30. Insurance, $2,500. Occupied by Thomas O'Connell as dwelling. Loss, $30. No insurance. Cause, dropping lamp on table set fire to clothing.

Tuesday, November 28, 4.10 P. M. Still Alarm

No. 790 Main Street. Owned by W. C. Cutter. No loss. Occupied by James S. White as dwelling. No loss. Cause, kettle of fat on stove.

December

Thursday, December 1, 7.58 P. M. Box 63

No. 16 Mellen Street. Owned by Thomas Shea. Loss, $650. Insurance, $6,500. Occupied by Edith Vigzors as dwelling. Loss, $150. Insurance, $1,000. Cause, sparks in rubbish from chimney in cellar.

Thursday, December 1, 10.20 P. M. Still Alarm

Off Kirkland Street. Owned and occupied by Harvard College as paint shop. Loss, $20. Insurance, $41,500. Cause, spontaneous in oily rags.

Friday, December 2, 7.24 A. M. Box 23

No. 295 Windsor Street. Owned by Max Zeiter. Loss trifling. Occupied by John Walker as dwelling. Loss, triffing. Cause, match dropped on naphtha bottle.

Friday, December 2, 3.00 P. M. Still Alarm

No. 156 Brookline Street. Owned by Dora Lewis. Loss, $65. Insurance, $4,000. Occupied by Sarah Morris. Loss, trifling. Cause, careless throwing fire in entry way.

Saturday, December 3, 8.13 A. M. Box 61

No. 40 Myrtle Avenue. Owned by Walter Kensington. Loss, $35. Insurance, $2,500. Occupied by John Ross as dwelling. Loss, $50. No insurance. Cause, child set fire to bed.

Saturday, December 3, 6.00 P. M. Still Alarm

No. 9 Eliot Square. Owned and occupied by Hugh Nawn as engine house. Loss, trifling. Cause, overheated stovepipe through roof.

Saturday, December 3, 4.15 P. M. Still Alarm

Binney Street. Owned by B. & A. R. R. freight car. Loss trifling. Cause, boys set fire to rubbish in car.

Saturday, December 3, 4.40 P. M. Box 45

No. 19 Beaver Street. Owned and occupied by Hugh Riley as dwelling. No loss. Cause, chimney fire.

Saturday, December 3, 4.45 P. M. Still Alarm

No. 12 Winslow Street. Owned by Fred Johnson. Loss, $20. Insurance, $2,500. Occupied by Henry Bennett as dwelling. Loss, $18. No insurance. Cause, oil lamp exploded.

Monday, December 5, 4.24 P. M. Box 134

No. 8 Lowland Avenue. Owned by Joseph Silva. Loss, $35. Insurance, $1,400. Occupied by Lewis E. Gilman. Loss, $50. No insurance. Cause, woman's clothing took fire from stove. Alarm from Box 14 for same fire as from Box 134.

Monday, December 5, 6.00 P. M. Still Alarm

No. 41 Fenno Street. Owned by Frank Blood as dwelling. No loss. Cause, chimney fire.

Monday, December 5, 10.38 P. M. Still Alarm

No. 10 Linnaean Street. Owned by Gertrude Beard as dwelling. No loss. Cause, chimney fire.

Tuesday, December 6, 5.15 P. M. Box 351

No. 141 Hamilton Street. Owned by Thomas Hardy. Loss, $17. Insurance, $3,000. Occupied by D. Richardson as dwelling. Loss, $45. Insurance, $500. Cause, spark from match set fire to chair.

Tuesday, December 6, 5.53 P. M. Box 7

No. 5 Upland Road. Owned by Joseph Noera as dwelling. No loss. Cause, chimney fire.

Tuesday, December 6, 8.40 P. M. Still Alarm

No. 167 Tremont Street. Owned by J. H. Cunningham as dwelling. No loss. Cause, chimney fire.

Wednesday, December 7, 7.15 A. M. Box 681

No. 37 Hubbard Avenue. Owned by Charles Whaley. Loss, $300. Insurance, $3,000. Occupied by Charles Whaley as dwelling. Loss, $100. Insurance, $1,000. Cause, fire in cellar from soot falling from clean out door in chimney.

Thursday, December 8, 4.15 P. M. Still Alarm

No. 86 Windsor Street. Owned by G. Giles, agent, as dwelling. No fire. Cause, smoke from stove.

Saturday, December 10, 8.58 A. M. Box 291

No. 256 Elm Street. Owned by Wm. Swartz. Loss, $35. Insurance, $3,000. Occupied by Jeremiah Mahoney as dwelling. No loss. Cause, thawing waterpipe with fire.

Saturday, December 10, 3.20 P. M. Box 247

No. 90 Harvard Street. Owned by Israel Nisson. Loss, $175. Insurance, $4,000. Occupied by West Indian Cricket Club. No loss. Cause, thawing waterpipe with fire.

Saturday, December 10, 5.31 P. M. Box 54

No. 118 Brattle Street. Owned by Giles Taintor. No loss. Occupied by H. B. Washburn as dwelling. No loss. Cause, chimney fire.

Sunday, December 11, 1.05 P. M. Box 13

No. 152 Bridge Street. Owned by Boston Elevated Railway. Loss, $73. Insurance, $1,500. Occupied by John Fitzpatrick as dwelling. No loss. Cause, thawing waterpipe with fire.

Sunday, December 11, 7.31 P. M. Still Alarm

No. 11 Fayerweather Street. Owned and occupied by Robert DeC. Wood as dwelling. No loss. Cause, chimney fire.

Monday, December 12, 4.30 P. M. Still Alarm

No. 20 Homer Avenue. Owned by Agnes Gilmore. Loss, $20. Insurance, $1,800. Occupied by Mary Balnar as dwelling. No loss. Cause, hot ashes in barrel outside building.

Tuesday, December 13, 1.46 P. M. Box 25

No. 291 Main Street. Owned by Caroline Dallinger. Loss, $50. Insurance, $1,000. Occupied by Mary Langley as dwelling. No loss. Cause, sparks from chimney on roof.

Tuesday, December 13, 5.20 P. M. Still Alarm

No. 111 Spring Street. Owned by Wm. Quinn. No loss. Occupied by M. A. Perry as dwelling. No loss. Cause, chimney fire.

Wednesday, December 14, 9.00 P. M. Still Alarm

No. 59 Plympton Street. Owned by Grey Murchin. No loss. Occupied by W. G. Phillips as dwelling. No loss. Cause, chimney fire.

Thursday, December 15, 4.50 A. M. Box 49

No. 1683 Cambridge Street. Owned by James E. Stewart. Loss, $1,673. Insurance, $4,000. Occupied by H. K. Welch as dwelling. Loss, $904.67. Insurance, $1,000. Cause, fire left on chair burned through floor into partition.

Thursday, December 15, 2.50 P. M. Box 624

Rear 1767 Massachusetts Avenue. Rubbish in yard.

Thursday, December 15, 6.30 P. M. Box 432

No. 30 Soden Street. Owned by J. Poindexter. Loss, $50. Insurance, $2,000. Occupied by H. Roachford as dwelling. Loss, $162. Insurance, $800. Cause, snap match on draperies.

Friday, December 16, 1.59 P. M. Box 247

No. 26 Burleigh Street. Owned by Vincent Plancide. Loss, trifling. Occupied by J. Smith as dwelling. No loss. Cause, thawing waterpipes.

Friday, December 16, 3.10 P. M. Still Alarm

No. 37 Osborn Street. Owned and occupied by Alberti Box Co. as box factory. Loss, $200. Insurance, $35,000. Cause, overheated boiler ignited lumber.

Friday, December 16, 4.30 P. M. Box 24

Hampshire Street. Owned and occupied by Cambridge Electric Light Co. as transformer house. Loss trifling. Cause, wires crossed.

Friday, December 16, 8.50 P. M. Still Alarm

No. 4 Fayerweather Street. Owned and occupied by C. H. Carruth as dwelling. No loss. Cause, chimney fire.

Sunday, December 18, 5.30 P. M. Still Alarm

No. 16 Third Street. Owned by Sophia Fisher. Loss, $15. Insurance, $1,500. Occupied by Frank Traino as dwelling. Loss, $20. Insurance, $500. Cause, careless dropping fire in dish closet.

Monday, December 19, 1.11 A. M. Box 741

No. 195 Sherman Street. Owned by N. Grenier. Loss, $45. Insurance, $1,500. Occupied by L. Robilliard as dwelling. Loss, $25. No insurance. Cause, lamp exploded in bedroom.

Tuesday, December 20, 1.30 P. M. Still Alarm

Accidental automatic from Irvin & Casson.

Tuesday, December 20, 3.04 P. M. Box 94

No. 9 Ericson Street. Owned by John Shaw. Loss, $75. Insurance, $5,000. Occupied by Wm. Sanborn as dwelling. Loss trifling. Cause, mice and matches in partition.

Wednesday, December 21, 11.42 A. M. Box 233

No. 138 Harvard Street. Owned by S. J. Davis. No loss. Occupied by Sherman Philpot as dwelling. No loss. Cause, pot of beans burning in stove oven.

Wednesday, December 21, 5.40 P. M. Still Alarm

No. 23 Francis Avenue. Owned and occupied by W. H. Pear as dwelling. No loss. Cause, naphtha took fire by woman cleaning gloves.

Thursday, December 22, 1.03 P. M. Box 29

No. 400 Norfolk Street. Owned by Mary Good. Loss, $15. Insurance, $1,500. Occupied by Dennis Cotter as dwelling. Loss, $30. No insurance. Cause, child set fire to paper.

Thursday, December 22, 5.05 P. M.

Accidental automatic from Riverside Press.

Friday, December 23, 3.14 A. M. Box 21

No. 48 Harding Street. Owned by Lewis Swatzman. Loss, $400. Insurance, $500. Occupied by P. Wiseman as stable. Loss, $90. No insurance. Cause, supposed incendiary. Box 212. For same fire as from Box 21.

Friday, December 23, 6.23 A. M. Box 291

No. 325 Elm Street. Owned by A. Cohen. Loss trifling. Occupied by S. Kauerash as dwelling. No loss. Cause, fire fell from stovepipe hole in chimney.

Friday, December 23, 10.23 P. M. Box 291

No. 270 Elm Street. Owned by A. M. Stewart. Loss, $335. Insurance, $500. Occupied by Pill Bros. as storage. Loss, $800. Insurance, $2,000. Cause, unknown.

Saturday, December 24, 3.30 P. M.

Ladder Co. No. 2 responded to Box 23, Somerville.

Saturday, December 24, 7.46 P. M. Box 13

Rear 136 Bridge Street. Owned by Boston Elevated Railway. Loss, $73. Insurance, $1,500. Occupied by Albert Prince as dwelling. Loss, $55. Insurance, $500. Cause unknown. Originated in bed.

Sunday, December 25, 12.18 P. M. Box 361

No. 14 Andrew Street. Owned and occupied J. Santoro as dwelling. Loss to contents, $25. Insurance, $800. Cause, sitting room stove overturned.

Monday, December 26, 9.35 A. M. Box 18

No. 241 Vine Street. Owned by John Crowley. Loss, $290. Insurance, $1,800. Occupied by John Crowley as dwelling. Loss, $200. No insurance. Cause, spark from stove ignited lounge.

Monday, December 26, 10.12 A. M. Box 381

No. 25 Jay Street. Owned by Commercial Pioneer Institution. Loss, $110.50. Insurance, $2,500. Occupied by B. J. Allen as dwelling. No loss Cause, child set fire in water closet.

Monday, December 26, 11.40 A. M. Still Alarm

No. 34 Buckingham Street. Owned and occupied by J. E. C. Chapman as dwelling. No loss. Cause, chimney fire.

Monday, December 26, 12.55 P. M. Still Alarm

No. 1 Murdock Street. Owned by Nicholas Bechtell. No loss. Occupied by L. Hicks as dwelling. No loss. Cause, chimney fire.

Monday, December 26, 5.20 P. M. Still Alarm

No. 22 Craigie Street. Owned and occupied by J. P. Hopkinson as dwelling. No loss. Cause, chimney fire.

Wednesday, December 28, 11.50 A. M. Still Alarm

No. 11 Marcella Street. Owned by William Conway. Loss trifling. Occupied by John Donovan as dwelling. No loss. Cause, Christmas tree took fire.

Thursday, December 29, 1.55 A. M.

Accidental automatic from Bell's factory.

Thursday, December 29, 10.54 A. M. Box 12

No. 27 Winter Street. Owned by Joseph Moran. No loss. Occupied by H. O. Grostein as dwelling. No loss. Cause, waste paper in brick oven.

Friday, December 30, 6.50 A. M.

Engine Co. No. 4 responded to Somerville Box 427.

Friday, December 30, 10.47 A. M. Box 7

No. 830 Massachusetts Avenue. Owned by Arthur Moll. Loss, $140.33. Insurance, $3,000. Occupied by Arthur Moll as dwelling. Loss, $82. Insurance, $3,000. Cause, child set fire to Christmas decorations.

Friday, December 30, 3.47 P. M. Still Alarm

Cor. East and North Streets. Rubbish fire.

Friday, December 30, 6.10 P. M. Still Alarm.

No. 2 Rutland Street. Owned and occupied by Chas. Moore. No loss. Cause, chimney fire.

Saturday, December 31, 1.45 A. M. Still Alarm.

No. 121 Norfolk Street. Owned by Archbishop O'Connell as parish house. No loss. Cause, chimney fire.

Saturday, December 31, 6.32 A. M. Box 36

Cor. Pearl and Lawrence Streets. Owned by A. H. Reed as automobile. Loss, $1,000. Insurance, $1,000. Cause, back fire from spark.

Saturday, December 31, 8.16 P. M. Box 21

No. 100 Willow Street. Owned by R. B. Plummer as unoccupied dwelling. Loss, $50. Insurance, $20,000. Cause, thawing water pipes.

January

Monday, January 2, 5.32 P. M. Box 192. False Alarm

Monday, January 2, 11.49 P. M. Box 14

Kuln's factory. Gong ringing outside of building. No fire.

Thursday, January 5, 10.58 A. M. Box 14

No. 28 Second Street. Owned by James Dennison. Loss, $25. Insurance, $1,371. Occupied by Michael Delano as dwelling. No loss. Cause, rats in partition.

Thursday, January 5, 2.17 P. M. Box 72

No. 2106 Massachusetts Avenue. Owned and occupied by S. T. Bancroft as dwelling. No loss. Cause, plumbers' oakum took fire from candle.

Thursday, January 5, 5.31 P. M. Box 282

No. 114 Pine Street. Owned by Lois Theophilos as fruit wagon. Loss trifling. Cause, oil stove took fire in wagon.

Friday, January 6, 12.43 A. M. Box 74

No. 154 Sherman Street. Owned and occupied by John Deiz as dwelling. Loss trifling. Cause, defect in chimney in cellar.

Friday, January 6, 6.10 P. M. Still Alarm

No. 678 Massachusetts Avenue. Owned and occupied by T. H. Raymond as office. No loss. Cause, chimney fire.

Saturday, January 7, 6.45 P. M. Box 381. False Alarm

Sunday, January 8, 7.20 P. M. Box 381

No. 26 Jay Street. Owned by N. Samoilovich. Loss, $153.45. Insurance, $4,500. Occupied by N. Samoilovich as dwelling. Loss, $254.25. Insurance, $800. Cause, careless use of lamp in clothes closet.

Monday, January 9, 9.52 A. M.

Accidental automatic from Keeler's mill.

Tuesday, January 10, 5.44 A. M. Box 215

No. 8 Jefferson Street. Owned by T. E. Blake. No loss. Occupied by several families. Cause, chimney fire.

Tuesday, January 10, 4.43 P. M. Box 57

No. 8 Hubbard Park. Owned by J. L. Winters. Loss, $50. Insurance, $9,000. Occupied by J. L. Winters as dwelling. Loss, $100. Insurance, $4,000. Cause, electric sparkler set fire to cotton on Christmas tree.

Wednesday, January 11, 12.10 A. M. Box 443

No. 10 Pleasant Street. Owned by Abraham J. Bennett as unoccupied dwelling. Loss, $180. Insurance, $8,000. Cause, overheated salamander stove drying plaster.

Wednesday, January 11, 1.55 P. M. Box 79

No. 2405 Massachusetts Avenue. Owned by E. R. Dicks. No loss. Occupied by F. S. Flynn as variety store. No loss. Cause, kettle of candy boiled over on stove.

Wednesday, January 11, 8.10 P. M.

Engine Co. No. 1 sent to assist at fire in Watertown.

Thursday, January 12, 6.52 A. M. Box 27

No. 624 Main Street. Smoke mistaken for fire.

Saturday, January 14, 4.05 A. M.

Accidental automatic alarm from Bell's factory.

Saturday, January 14, 2.45 P. M. Still Alarm

No. 215 First Street. Owned by Ginn & Co. Loss trifling. Cause, spontaneous in soft coal.

Sunday, January 15, 6.20 P. M. Still Alarm

No. 2 Reidesel Street. Owned by Brewster estate. No loss. Occupied by H. A. Bruce as dwelling. No loss. Cause, chimney fire.

Sunday, January 15, 11.59 P. M.

Accidental automatic from Thompson factory.

Monday, January 16, 2.07 A. M. Box 79

No. 7 Gladstone Street. Owned by Patrick Graham as henhouse. Loss, $300. Insurance, $300. Cause, supposed incendiary.

Monday, January 16, 6.16 A. M. Box 23

No. 52 Plymouth Street. Owned and occupied by P. H. Hennessey as bakery. Loss trifling. Cause, careless dropping lighted match under counter.

Monday, January 16, 7.26 P. M. Box 711

No. 23 Regent Street. Owned by Walter Gleason. No loss. Occupied by Jennie Campbell as dwelling. Loss, $10. No insurance. Cause, dropping fire on ironing board.

Tuesday, January 17, 12.01 P. M. Still alarm

Call to extricate body of boy killed in elevator in Library Bureau building.

Tuesday, January 17, 2.23 P. M. Box 53

No. 90 Brattle Street. Owned and occupied by John Fiske as dwelling. No loss. Cause, chimney fire.

Wednesday, January 18, 2.03 P. M. Still Alarm

No. 6 Hilliard Street. Owned by S. Batchelder. No loss. Occupied by D. C. Dow as dwelling. No loss. Cause, chimney fire.

Wednesday, January 18, 5.27 P. M. Box 431

Massachusetts Avenue near Clinton Street. Gas main broken in street. Box 43 alarm for same fire as from Box 431.

Thursday, January 19, 5.40 P. M. Still alarm

Fresh Pond Park. Grass fire.

Friday, January 20, 9.52 A. M. Box 453

No. 43 Magee Street. Owned by S. J. Killey. Loss, $25. Insurance, $1,500. Occupied by Kenneth Turner as dwelling. Loss, $75. Insurance, $500. Cause, mice and matches in sideboard.

Saturday, January 21, 2.05 P. M. Still alarm

Rindge Avenue Cemetery. Grass fire.

Sunday, January 22, 7.57 A. M. Still alarm

No. 185 Cambridge Street. Owned by Alvin Sawtell. Loss, $30. Insurance, $500. Occupied by Pasqualo Luonga as dwelling. No loss. Cause, partition fire caused by rats.

Monday, January 23, 9.23 A. M. Box 421

No. 29 Inman Street. Owned by L. M. Hannum estate. Loss, $20. Insurance, $3,500. Occupied by W. A. King as dwelling. Loss, $50. Insurance, $1,500. Cause, careless use of lamp in clothes closet.

Tuesday, January 24, 2.00 P. M. Still alarm

No. 8 Eliot Street. Owned by John Delaney. Loss, $65. Insurance, $1,500. Occupied by John Daniels as dwelling. No loss. Cause overheated stove.

Tuesday, January 24, 8.42 P. M. Still alarm

No. 559 Massachusetts Avenue. Owned by Asa Lamson. No loss. Occupied by H. E. Barnes as store. No loss. Cause, chimney fire.

Wednesday, January 25, 12.10 P. M. Still Alarm

No. 49 Raymond Street. Grass fire.

Wednesday, January 25, 5.27 P. M. Box 137

Near Prison Point Street. Boston & Maine Railroad. Cause, locomotive collided with cars in yard.

Thursday, January 26, 10.03 P. M. Box 291

No. 1058 Cambridge Street. Owned by Wm. Kruger. Loss, $25. Insurance, $15,000. Occupied by C. A. Richards Co. as confecticnery store. Loss, trifling. Cause, careless dropping fire on cellar stairs.

Friday, January 27, 12.55 P. M.

Accidental automatic from Gerlash mill.

Friday, January 27, 3.57 P. M. Box 291

No. 1107 Cambridge Street. Owned by Nellie O'Mara. Loss, $95. Insurance, $2,500. Occupied by Harry Gordon as dwelling. Loss, $100. Insurance, $700. Cause, overheated stove. Alarm from Box 29 for same fire as from Box 291.

Saturday, January 28, 7.30 P. M. Still alarm

No. 21 Gray Street. Owned by Peter McCall. No fire. Cause of alarm, chimney blown over and fell through skylight.

Saturday, January 28, 7.33 P. M. Box 282

No. 68 School Street. Owned and occupied by John Coleman as dwelling. No loss. Cause, chimney fire.

Sunday, January 29, 3.37 A. M. Box 247

No. 121 Washington Street. Owned by Andrew Olsen. Loss, $85. Insurance, $1,600. Occupied by John Harvey as dwelling. Loss, trifling. Cause, partition fire, rats and matches.

Monday, January 30, 10.58 P. M. Box 27

No. 805 Main Street. Owned by E. F. Davis. Loss, trifling. Occupied by G. Koliopoulos as awning over store door. Loss, $52. Insurance, $1,000. Cause, awning took fire from gas light.

February

Wednesday, February 1, 11.45 A. M. Still alarm

No. 221 Broadway. Owned by Jacob Spear. Loss, trifling. Occupied by C. L. Drew as dwelling. No loss. Cause, thawing water pipe.

Wednesday, February 1, 10.10 P. M. Still alarm

No. 21 Thorndike Street. Accidental automatic from J. Josephs Co.

Wednesday, February 1, 10.28 P. M. Box 28

Harvard Street. Owned by Methodist Church Society. Loss, $430. Insurance, $24,500. Cause, gas light ignited wood work in water closet.

Thursday, February 2, 6.30 P. M. Still alarm

No. 8 Highland Street. Owned and occupied by Wm. Pickering as dwelling. Loss, trifling. Cause, overheated furnace pipe.

Friday, February 3, 9.48 A. M. Box 723

No. 2298 Massachusetts Avenue. Owned by David Lonergan. Loss, $1,200. Insurance, $9,000. Occupied by Rachel Halpern as hardware store. Loss, $1,285.68. Insurance, $2,000. Cause, unknown.
Alarm from Box 721 for same fire as from Box 723.

Friday, February 3, 5.36 P. M. Still alarm

Near Ninth Street. Owned by B. & A. R. R. as car. Loss, $250. Insurance, $250. Occupied by E. R. Luke as hay. Loss, $243.92. Insurance, $250. Cause, supposed set afire by boys.

Saturday, February 4, 12.45 P. M.

Engine No. 5 responded to Somerville, Box 219.

Sunday, February 5, 5.36 A. M. Box 247

No. 77 Hastings Street. Owned by E. Mattison. Loss, $20. Insurance, $1,000. Occupied by Augusta Callendar as dwelling. Loss, $30. No insurance. Cause, lamp exploded, setting fire to bed.

Sunday, February 5, 11.50 A. M. Box 233

No. 169 Windsor Street. Owned by Wm. Wiseman. Loss, $70. Insurance, $1,500. Occupied by Daniel Sullivan as dwelling. Loss, $15. No insurance. Cause, child set fire to bureau.

Sunday, February 5, 2.34 P. M. Box 311

No. 434 Green Street. Rubbish in yard.

Sunday, February 5, 7.37 P. M. Box 233

No. 2 Market Street. Owned by Jacob Spear. Loss, trifling. Occupied by Hyman Block as dwelling. Loss, $125. Insurance, $500. Cause, child set fire in clothes closet.

Monday, February 6, 9.25 A. M. Still alarm

No. 58 Broadway. Owned by J. E. Doherty. Loss, $50. Unoccupied dwelling. Cause, fire from open stove pipe hole in chimney fell onto floor.

Monday, February 6, 12.39 P. M. Box 27

Albany Street. Owned and occupied by George W. Gale Lumber Co. as mill. Loss, trifling. Cause, spontaneous in shaving bin.

Tuesday, February 7, 8.50 A. M.

Engine No. 5 responded to Somerville, Box 241.

Tuesday, February 7, 6.05 P. M. Box 27

No. 9 Harrison Street. Owned by E. Brooks estate. No loss. Occupied by N. Sealfen as dwelling. No loss. Cause, kettle of fat on stove.

Thursday, February 9, 8.08 P. M.

Accidental automatic from Bell's factory.

Thursday, February 9, 8.10 P. M. Box 54

No. 213 Mt. Auburn Street. Owned by Patrick Shea. Loss, trifling. Occupied by Owen Rooney as dwelling. No loss. Cause, overturned lamp.

Saturday, February 11, 10.18 P. M. Still alarm

Magazine Beach. Owned by M. M. Watkins as automobile. Loss, $2,800. No insurance. Cause, automobile took fire from gasolene tank.

Tuesday, February 14, 3.37 P. M. Box 45.

No. 33 Flagg Street. Owned by Charles Moore. No loss. Occupied by Joseph Foster as dwelling. No loss. Cause, chimney fire.

Wednesday, February 15, 11.13 A. M. Still alarm

No. 36 Amory Street. No fire. Steam from shingles on roof drying in sun.

Thursday, February 16, 9.25 A. M.

Ladder Co. No. 2 responded to Somerville, Box 23.

Sunday, February 19, 9.23 P. M. Still alarm

No. 42 Garden Street. Owned and occupied by E. J. Odiom as dwelling. No loss. Cause, chimney fire.

Monday, February 20, 12.52 P. M. Still alarm

No. 19 Tremont Street. Owned by A. Vila. No loss. Occupied by E. J. Inery as dwelling. No loss. Cause, spontaneous in stove rags.

Tuesday, February 21, 11.14 A. M. Box 215

No. 33 Ninth Street. Owned by James Mahoney. Loss, $250. Insurance, $3,000. Occupied by James Mahoney as dwelling. Loss, $800. Insurance, $24. Occupied by Michael O'Connell as dwelling. Loss, $75. No insurance. Cause, careless use of fire in clothes closet.

Wednesday, February 22, 3.30 P. M. Box 19.

No. 531 Cambridge Street. Owned by A. V. Machiel. Loss, $100. Insurance, $5,000. Occupied by J. J. Holland as shoe store. Loss, $56. Insurance, $2,000. Cause, overheated stove.

Wednesday, February 22, 5.46 P. M. Box 282. False alarm

Wednesday, February 22, 6.35 P. M. Box 346

No. 101 Brookline Street. Owned by Commercial Pioneer Inst. Loss, $322. Insurance, $3,500. Occupied by Berry H. Pocher as dwelling. Loss, $70. Insurance, $500. Cause, partition fire, rats and matches.

Wednesday, February 22, 6.51 P. M. Box 27

No. 40 Windsor Street. Owned by Luke Redish. No loss. Occupied by James Allen as dwelling. Loss, trifling. Cause, overturned lamp.

Thursday, February 23, 12.35 A. M. Still alarm

No. 2076 Massachusetts Avenue. Owned by Mt. Sinai Bldg. Asso. as hall and lodge rooms. Loss, trifling. Cause, careless throwing fire on floor.

Thursday, February 23, 7.13 A. M. Box 39

No. 700 to 706 Massachusetts Avenue. Owned by G. R. Southwick. Loss, $4,000. Insurance, $5,000. Occupied by England & Co. as plumbers. Loss, $625. Insurance, $1,300. No. 702 occupied by Bryant & Co. as electricians. Loss, $1,350. Insurance, $1,500.

No. 704 occupied by E. L. Derby as undertaker. Loss, $561.40. Insurance, $600. No. 706 occupied by Paris Tailoring Co. as tailor shop. Loss, 200. No insurance. Originated in cellar of No. 700. Cause, careless throwing lighted match in waste box.

Thursday, February 23, 5.15 P. M.

Engine Co. No. 5 responded to Somerville, Box 26.

Friday, February 24, 11.01 A. M. Box 215

No. 20 Marion Street. Owned by Thomas Horrigan. Loss, $20. Insurance, $1,000. Occupied by Michael O'Connor as dwelling. Loss, $25. No insurance. Cause, careless dropping fire in closet.

Friday, February 24, 3.15 P. M. Still alarm

No. 112 Brattle Street. Owned by Charles Martin heirs. Loss, $200. Insurance, $6,000. Occupied by C. H. Moore as dwelling. Loss, $22.50. Insurance, $3,500. Cause, unknown. Fire in water closet.

Friday, February 24, 11.32 P. M. Still alarm

No. 325 Harvard Street. Owned and occupied by W. M. Madden as dwelling. Loss, $150. Insurance, $6,000. Cause, electric wires in cellar.

Saturday, February 25, 7.35 A. M. Still alarm

No. 16 Upton Street. Owned by J. Robinson. Loss, $25. Insurance, $1,500. Occupied by B. J. Morris. Loss, trifling. Cause, careless use of fire in closet.

Sunday, February 26, 12.01 A. M. Box 281

No. 275 Broadway. Owned by John L. Norris. Loss, $100. Insurance, $2,000. Occupied by James E. Gould as dwelling. Loss, $45. Insurance, $600. Cause, careless smoking in bedroom.

Tuesday, February 28, 3.30 A. M.

Ladder Co. No. 2 responded to Somerville, Box 21.

Tuesday, February 28, 7.56 A. M. Box 54

No. 5 Bradbury Street. Owned by P. J. Shea. No loss. Occupied by James Maeffico as dwelling. No loss. Cause, chimney fire.

Tuesday, February 28, 3.42 P. M. Still alarm

No. 1961 Massachusetts Avenue. Owned and occupied by F. Ivers & Son as office. Loss, $100. Insurance, $500. Cause, careless dropping fire in desk.

March

Thursday, March 2, 1.03 P. M.

Accidental automatic from Irvin & Casson.

Saturday, March 4, 5.57 A. M. Box 192

No. 122 Otis Street. Owned by T. E. Blake. Loss, $300. Insurance, $4,000. Occupied by James Croucher as dwelling. Loss, $157.50. Insurance, $2,000. Cause, gas leaking and lighted lamp caused explosion.

Monday, March 6, 3.48 P. M. Box 178

Potter Street. Owned and occupied by American Rubber Co. as factory. Loss trifling. Cause, sparks from friction on gossamer machine.

Tuesday, March 7, 3.14 P. M. Box 195

Fire in Somerville, Squires' Building.

Friday, March 10, 2.12 P. M. Still alarm

No. 724 Cambridge Street. Owned and occupied by Michael Grosman as dwelling. Loss, trifling. Cause, child set fire in closet.

Saturday, March 11, 4.06 P. M. Box 282

No. 290 Washington Street. Owned by Jacob Seizberg. No loss. Occupied by Carl Sillen as dwelling. No loss. Cause, smoke in room from chimney.

Saturday, March 11, 6.25 P. M. Still alarm

No. 2 Hampshire Street. Owned by John McFarlane. No loss. Occupied by James Riley as dwelling. Loss, trifling. Cause, careless dropping lamp.

Sunday, March 12, 2.55 A. M. Still alarm

No. 483 Massachusetts Avenue. Owned by Harvard University. Loss, $25. Insurance, $8,000. Occupied by Eric Leoine as dwelling. No loss. Cause, lamp too near woodwork.

Sunday, March 12, 4.22 A. M. Box 721

No. 2271 Massachusetts Avenue. Owned by Jeremiah Green. Loss, $1,071. Insurance, $8,000. Occupied by Sarah J. Hurley as dwelling. Loss, $75. No insurance. Occupied by Wm. Mahoney as dwelling. Loss, $90. Insurance, $500. Cause, careless use of fire in clothes closet.

Sunday, March 12, 8.50 A. M. Box 512

No. 44 Church Street. Owned and occupied by Calumet Club as club house. No loss. Cause, chimney fire.

Monday, March 13, 6.40 P. M. Box 351

Pearl Street. Owned by Wm. T. Curley as automobile.

Monday, March 13, 7.41 P. M. Box 294

No. 453 Windsor Street. Owned by P. Flayderman. Loss, $10. Insurance, $1,000. Occupied by Ellen Carney as dwelling. Loss, $25. No insurance. Cause, overturned lamp.

Tuesday, March 14, 5.45 P. M. Still alarm

No. 200 Brattle Street. Owned and occupied by M. M. Bigelow as dwelling. No loss. Cause, chimney fire.

Tuesday, March 14, 8.30 P. M. Box 245

Sixth, corner Harvard Street. Owned by Boston Elevated Railway Loss, $300. Insurance, $6,000. Occupied by Essex Brass Co. as foundry. Loss, $600. Insurance, $5,400. Cause, fire from furnace set fire to floor.

Wednesday, March 15, 10.33 A. M. Box 381

No. 294 Western Avenue. Owned by Nathan Barron. Loss, trifling. Occupied by P. Rosenbeaum as dwelling. Loss trifling. Cause, towel too near stove took fire.

Wednesday, March 15, 1.20 P. M. Box 243

No. 145 Broadway. Owned and occupied by S. Tower as boiler room. No loss. Cause, shavings took fire from fire under boiler.

Wednesday, March 15, 4.56 P. M. Box 43

No. 908 Massachusetts Avenue. Owned by A. L. Norris. Loss, trifling. Occupied by Nellie Tibbets as dwelling. Loss, trifling. Cause, gas light ignited woodwork.

Thursday, March 16, 3.47 A. M. Box 47

Bow, corner Linden Street. Owned by J. Randolph Coolidge, et al. Loss, $21,600. Insurance, $175,000. Occupied by Harvard students. Loss, $13,895. No insurance. Cause, supposed careless throwing fire on carpet. Three-alarm fire.

Thursday, March 16, 3.55 P. M. Box 13

No. 8 Gore Street. Owned by Charles Fine. Loss, $46. Insurance, $1,500. Occupied by Thomas Rose as dwelling. Loss, $10. No insurance. Cause, rats in partition.

Thursday, March 16, 7.02 P. M. Box 27

No. 37 Portland Street. Owned by John McNamara. Loss, trifling. Occupied by Catherine Smith as dwelling. No loss. Cause, careless throwing lighted match on curtain.

Friday, March 17, 4.23 A. M. Box 291

No. 467 Windsor Street. Owned by F. P. Scanlan. No loss. Occupied by D. Seed as dwelling. No loss. Cause, smoke in room from chimney.

Saturday, March 18, 1.02 A. M. Still alarm

No. 149 Bridge Street. Owned by B. & M. R. R. as unoccupied dwelling. No loss. Cause, tramp set fire to rubbish.

Friday, March 24, 11.20 P. M. Box 296

No. 284 Norfolk Street. Alarm from the A. D. T. No fire.

Friday, March 24, 11.32 P. M. Box 781

Clarendon Street. Alarm from the A. D. T. No fire.

Saturday, March 25, 10.22 A. M. Box 23

No. 55 Plymouth Street. Owned by J. M. Fineberg. Loss, trifling. Occupied by Max Herman as dwelling. Loss, $10. No insurance. Cause, child set fire to bed.

Saturday, March 25, 10.00 P. M. Box 681

No. 25 Vincent Street. Owned by Alfred Andrews. Loss, $800. Insurance, $7,000. Occupied by Fred. Kleinberg as dwelling. Loss, $90. Insurance $500. Cause, lamp exploded.

Tuesday, March 28, 10.50 A. M. Still alarm

No. 1271 Cambridge Street. Owned by McClosky & Harty. No loss. Occupied by A. Fopiano as store. No loss. Cause, smoke from chimney.

Thursday, March 30, 9.30 P. M. Still alarm

No. 19 Magazine Street. Owned by H. Sweetland. No loss. Occupied by Bessie Davis as dwelling. Cause, smoke from chimney.

Friday, March 31, 11.52 A. M. Box 291

No. 1010 Cambridge Street. Owned by F. P. Scanlan. No loss. Occupied by Isaac Charm as tinker shop. No loss. Cause, smoke from charcoal furnace.

REPORT OF THE CHIEF OF POLICE

To the Honorable, the Mayor, and the City Council of Cambridge:—

GENTLEMEN:—In compliance with the City Ordinance I have the honor to present the annual report of the work of the Police Department to March 31st, 1911.

The whole number of arrests for the year was 3,906, and last year, 4,160, a decrease of 254.

Males	3,575	Adults	3,135
Females	331	Minors	771
Non-residents	1,007		

The offences for which arrests have been made are as follows:—

Assault and battery	243	Escaped prisoners	10
Assault with dangerous weapon	7	Exposure of person	7
Arson	2	Evading car fare	14
Assault, felonious	1	Fornication	11
Assault, with attempt to rob	3	Forgery	5
Assault, indecent	1	Gambling and present at on Lord's day	113
Attempt to commit larceny	3	Injury to new building	4
Attempt to break and enter	3	Insane	25
Adultery	14	Illegal sale of liquor	1
Abandonment of child	2	Illegal transportation of liquor	4
Allowing dangerous dog to run at large	1	Idle and disorderly	11
Breaking and entering	60	Interfering with a police officer	1
Bastardy	23	Incest	1
Buying junk from minors	2	Keeping unlicensed dog	9
Breaking and entering a railroad car	6	Keeping unlicensed junk shop	2
Attempt to assault	3	Keeping an unlicensed intelligence office	1
Abortion	1	Larceny from realty	1
Accessory before the fact of abortion	1	Larceny	229
Accessory to murder	1	Larceny from building	14
Capias	72	Liquor nuisance	2
Carrying concealed weapons	8	Lewd and lascivious cohabitation	12
Common drunk	36	Larceny from person	5
Conveying mortgage per property	1	Larceny from common carrier	1
Cruelty to children	7	Loitering	5
Contempt of court	9	Malicious mischief	45
Disturbance of peace	304	Murder	2
Disturbance on street car	11	Malicious injury to personal property	1
Drunkenness	1939	Malicious injury to real estate	4
Destroying a building	3	Manslaughter	1
Disorderly house	2	Making false alarm of fire	6
Disturbing a religious meeting	1	Neglected children	31

Neglect of minor children	11
Non-support	85
Obscene pictures in possession	1
Obstructing street car	3
Peddling without a license	21
Playing ball on Lord's day	2
Profanity	1
Public nuisance	2
Polygamy	1
Receiving stolen goods	5
Runaways	1
Refusing to assist officer	1
Robbery	7
Rape	3
Safe keeping	38
Stubborn children	36
Surrender bail	3
Stealing a ride	2
Sodomy	2
Selling cigarettes to minor	1
Suspicious persons	28
Selling berries by illegal measure	7
Threatening	3
Truants	4
Tramps	4
Throwing missiles at railroad train	4
Violating game law	2
Vagrants	24
Violating city ordinances	65
Violating liquor law	2
Violating milk law	13
Violating rules Board of Health	7
Violating park rules	7
Violating U. S. postal law	1
Violating school rules	1
Violating auto laws	32
Violating Boston traffic laws	4
Violation of parole	2
Violation of probation	62
Violating conditions of license	1
Violating voting law	1
Unlawful appropriation of horse and wagon	5
Wilful trespass	40
Walking on railroad track	7
Wayward child	4

NATIVITY OF PRISONERS

Russia	209
England	35
Ireland	726
Canada	275
Italy	74
Sweden	47
Greece	9
Denmark	1
China	2
New Zealand	3
France	2
Norway	11
Poland	37
Barbadoes	3
United States	2329
Cuba	2
Africa	1
Scotland	30
West Indies	13
Turkey	3
Armenia	2
Austria	6
Belgium	2
Germany	17
Spain	3
Honolulu	1
Newfoundland	38
Finland	3
Portugal	16
Azores	4
East Indies	1
Holland	1

OCCUPATION OF PRISONERS

Assessor	1
Artists	1
Actors	3
Agents	3
Auto dealers	4
Apprentices	8
Barbers	12
Butchers	22
Builders	1
Brush makers	1
Boiler makers	13
Building movers	1
Blacksmiths	28
Brass workers	15
Bakers	26
Brakeman	5
Bookkeepers	8
Bookbinders	2
Bartenders	2
Box makers	8
Ball players	2
Clerks	46

Canvassers	3	Milkmen	11
Core makers	5	Meat cutters	7
Cabinet makers	15	Miner	1
Carpenters	98	Manager	1
Cooks	17	Marketmen	1
Coopers	17	Moulders	14
Cigar makers	5	Motormen	1
Carriage makers	3	Masons	29
Collectors	3	Nurses	3
Cutters	5	Metal plater	1
Carriage drivers	3	Not working	274
Chauffeurs	17	Plumbers	23
Contractors	3	Printers	26
Chemists	4	Porters	13
Conductors	6	Pressmen	5
Coachmen	3	Poultrymen	3
Dressmakers	7	Peddlers	13
Draughtsmen	4	Plasterers	10
Druggists	7	Paper hangers	4
Domestics	28	Piano action makers	8
Decorators	3	Painters	90
Expressmen	15	Physicians	2
Engineers	9	Photographer	1
Electricians	16	Piano workers	7
Fishermen	4	Rope makers	1
Florists	4	Rubber workers	43
Furniture polishers	3	Roofers	58
Foremen	4	Riggers	2
Furniture movers	2	Restaurant keepers	1
Firemen	19	Real estate dealers	2
Farmers	14	Singers	1
Glass workers	14	Soldiers	1
Glaziers	4	Salesmen	32
Gardeners	20	Stewards	2
Harness makers	1	Students	20
Hostlers	12	Stone cutters	14
Housework	205	Scholars	236
Horse dealers	6	Sailors	16
Horse trainers	1	Shoemakers	16
Iron workers	34	Shippers	15
Janitors	5	Steam fitters	9
Jewelers	4	Store keepers	29
Junk dealers	13	Telegraph operators	4
Longshoremen	4	Tinsmiths	20
Lawyers	4	Tailors	17
Lumber surveyors	5	Tailoresses	3
Laundresses	13	Teamsters	339
Laundrymen	7	Upholsterers	8
Lathers	6	Wire workers	14
Laborers	1473	Watchmen	7
Mill hands	10	Waiters	24
Merchants	3	Wood workers	21
Machinists	66	Weavers	4

MISCELLANEOUS BUSINESS

Accidents	218	Dead bodies found	14
Buildings found open and secured	186	Defective catch basins	54
Cases investigated	3206	Defective gas pipes	17
		Defective water pipes	194

Defective hydrants	42	Fire alarms given by officers	10
Defective lamps	2109	Fires extinguished without an alarm	48
Defective wires	69	Lost children restored	187
Defective trees	13	Sick and injured persons assisted	144
Defective poles	27	Stray teams put up	41
Defective streets and sidewalks	1008	Street obstructions removed.	70
Disturbances suppressed	106	Water running to waste	54
Dogs killed	76		

SIGNAL SYSTEM

Duty calls by officers from boxes	438,000
Telephone calls from boxes	29,122
Wagon calls	2,250
Miles run	4,006
To fires	11
Sick and injured to hospital in patrol	95
Sick and injured to home in patrol	16

AMBULANCE

Emergency, accident and sickness calls	656
Removal to hospitals at request of Overseers of Poor	139

PROPERTY AT HEADQUARTERS

8 Roll top desks	$150 00	1 Letter scale	$1 00
1 Index case	50 00	11 Chairs	10 00
1 Rogues' gallery	50 00	2 Book cases	5 00
1 Typewriter	25 00	1 Umbrella stand	50
2 Tables	5 00	1 Copy press	5 00
1 Clothes press	15 00	3 Rugs	6 00
3 Maps	1 50	3 Waste baskets	75
Law Books	25 00	2 Directories	8 00
1 Dictionary	5 00	1 Couch	5 00
1 Telephone line	300 00	6 Ink stands	1 50
5 Revolvers	45 00	7 Badges	4 90
1 Camera stand	5 00	1 Print washer	1 75
1 Glass tunnel	20	1 Plate washer	1 60
2 Graduates	75	2 Trays	2 00
1 Dark room lantern	5 00	1 Hydrometer	30
1 Bertillon book	4 00	1 Linen glass	3 00
1 Finger print book	1 00		

PROPERTY AT STATION 1

Captain's Office

	Signal system table	
43	Boxes	$3,500 00
2	Desks	20 00
7	Chairs	5 00
1	Safe	10 00
1	Medicine cabinet	10 00
2	Cuspidors	50
1	Set revised laws	5 00
2	Clocks	3 00
1	Directory	4 00
1	Waste basket	1 25
2	Ink stands	50
1	Mirror	1 00
1	Pair hand cuffs	1 00
4	Tin dippers	20
5	Lanterns	3 00
3	Diaries	75
3	Rules and regulations	50
3	Short clubs	2 00
3	Pistols	15 00

Guard Room

1	Clock	1 00
3	Cuspidors	75
10	Chairs	2 50
1	Ice water tank	50
1	Mirror	$ 50
1	American Flag	5 00
1	Waste basket	25
1	Ink stand	25
31	Pistols	125 00
31	Short clubs	15 00
31	Rules and regulations	15 00
31	Badges	15 00
31	Diaries	15 00

Cell Room

1	Table	1 00
1	Oil can	25
5	Lanterns	1 00
2	Blankets	1 00
1	Grappling iron	2 50
1	Bicycle	5 00

Detention Room

4	Iron beds	25 00
1	Lounge	5 00
1	Mirror	1 00
1	Dressing case	5 00
2	Pails	50
2	Diaries	50
1	Gas stove and pipe	5 00
1	Watering pot	50

PROPERTY AT STATION 2

Captain's Office

4	Rugs	$4 00
2	Desks	20 00
3	Ink stands	75
2	Tables	4 00
2	Mirrors	2 00
2	Waste paper baskets	75
1	Umbrella stand	2 00
1	Signal table, boxes and apparatus	2,500 00
1	Clothes press	5 00
1	Book case	3 00

Guard Room

42	Revolvers	210 00
38	Billies	20 00
43	Belts	20 00
43	Badges	20 00
42	Diaries	20 00
43	Regulation books	20 00
7	Cuspidors	70
22	Chairs	22 00
2	Clocks	2 00
2	Settees	2 00
9	Lanterns	6 75
1	Oil can	50
1	Ice water tank	1 00
5	Wire mats	4 00

Cell Room

1	Operating table and chair	$20 00
1	Medicine cabinet	15 00

Wagon House

2	Horses	400 00
1	Wagon	400 00
1	Ambulance	50 00
2	Harnesses	50 00
2	Horse blankets	10 00
5	Ambulance blankets	10 00
1	Wagon jack	1 00
2	Horse brushes	50
2	Curry combs	50
2	Pails	50
2	Brooms	50
2	Wagon robes	2 00
1	Stable fork	1 00
1	Shovel	50
3	Stretchers	4 50
4	Galvanized barrels	4 00
1	Step ladder	50
1	Wash tub	50
1	Oil can	25
3	Beds and bedding for wagon drivers	40 00

PROPERTY AT STATION 3

Captain's Office

2	Roll top desks	$20 00
1	Slab top desk	20 00
1	Map	25
2	Pictures	1 00
1	Umbrella stand	50
1	Cuspidor	25
2	Ink wells	50
1	Waste basket	25
1	Directory	4 00
1	Set of revised laws	5 00
1	Pair of handcuffs	1 00
	Signal table apparatus wires and boxes	2,000 00
3	Chairs	1 50
1	Waste basket	25
1	Looking glass	1 00

Guard Room

9	Chairs	9 00
1	Table	2 00
2	Cuspidors	50
1	Ice water tank	1 00
1	Desk	2 00
1	Looking glass	1 00
1	Clock and two maps	1 25
30	Police belts	15 00
31	Revolvers	150 00
31	Badges	20 00
32	Diaries	15 00

Cell Room

1	Medicine chest	5 00
2	Chairs	2 00
1	Table	1 00
1	Looking glass	1 00
2	Cuspidors	50

Basement

7	Galvanized ash cans	7 00
2	Shovels	50
1	Pail	25
1	Feather duster	1 00
1	Floor brush	1 00
1	Dust pan and brush	1 50
1	Five gallon oil can	1 00
1	One gallon oil can	25
4	Lanterns	3 00
1	Axe	1 25
1	Small fire shovel	$ 25
1	Corn broom	25
1	Mop	25

Drivers' Rooms

2	Iron beds	5 00
2	Hair mattresses	6 00
6	Pillow slips	3 00
5	White sheets	5 00
4	Bed blankets	4 00
2	Comforters	3 00
4	Pillows	4 00
1	Writing desk	2 00
1	Looking glass	1 00

Wagon House

2	Horses	300 00
1	Patrol wagon	300 00
1	Prisoners' van	150 00
2	Blankets	3 00
2	Sets of harness	25 00
1	Old set not in use	1 00
2	Halters	25
1	Stretcher	1 00
2	Lanterns on patrol wagon	5 00
2	Whips	50
2	Horse blankets	2 00
2	Wagon robes	2 00
2	Hay forks	50
7	Polvanized cans	7 00
2	Water pails	25
1	Shovel	25
2	Sponges	50
25	Feet of rubber hose	2 00
1	Kerosene can	25
2	Chairs	1 00
1	Clock	1 00
1	Table	1 00
1	Broom	20
1	Grain chest	5 00
1	Extra bridle	2 50
1	Pair of handcuffs	1 00
1	Wagon jack	50
1	Iron cuspidor	25
1	Curry comb	25
1	Card	15
3	Brushes	50

PROPERTY AT STATION 4

Office

1	Roll top desk	$10 00
1	Medicine cabinet	20 00
1	Waste paper basket	40
1	Table	3 00
5	Chairs	5 00
2	Ink wells	50
1	Clock	1 00
1	Cuspidor	50
1	Set of revised laws	10 00
1	City directory	4 00
3	Pairs of handcuffs	6 00

Guard Room

10	Chairs	10 00
5	Cuspidors	2 50
1	Table	2 00
1	Small desk	5 00
1	Ink well	50
1	Waste basket	40
1	Clock	1 00
1	American flag	5 00
2	Settees	2 00
1	Ice water tank	1 00
1	Mirror	1 00
24	Belts	10 00
24	Badges	10 00
24	Billies	10 00
24	Revolvers	$120 00
24	Diaries	10 00

Wagon House

1	Horse	250 00
2	Harnesses	45 00
1	Combination wagon	400 00
1	Wagon jack	1 00
2	Brooms	75
2	Stable forks	1 00
1	Shovel	50
5	Galvanized barrels	2 00
30	Feet of hose	1 00
100	Feet of rope	2 00
1	Grappling iron	5 00
2	Pails	50
1	Oil can	50
2	Horse brushes	50
1	Horse blanket	4 00
3	Ambulance blankets	6 00
1	Grain chest	5 00
1	Curry comb	25
1	Grain measure	25
1	Small desk	4 00
4	Beds	15 00
	Bedding for two beds	10 00
3	Bicycles	15 00

NUMBER OF DAYS ABSENCE OF OFFICERS FROM DUTY FOR CAUSES AS SET OUT BELOW.

	Sick Half Pay Allowed for Sixty Days	Sick without Pay	Absent With Leave Without Pay	Vacations Pay Allowed	One Day Every 30 Days With Pay Allowed By Law
Sergeants					
Aberle, Chas. F.	11	.....	.....	14	12
Canney, John J.	60	.....	.....	14	12
Murray, Patrick F.	.....	.....	3	14	12
McNulty, Jas. E.	.....	.....	.....	14	12
Robinson, Fred A.	.....	.....	5	14	12
White, Orrin A.	.....	.....	.....	14	12
Keaney, James M.	.....	.....	.....	14	12
McMenimen, Wm. H.	26	.....	.....	14	12
Patrolmen					
Aberle, Wm. H.	8	.....	.....	14	12
Aylward, Richard	.....	.....	.....	14	12
Harrington, Geo. T.	.....	.....	.....	14	12
Biggane, Wm. F.	1	.....	.....	14	12
Blen, Elbridge S.	3	.....	.....	14	12
Bradley, Chas. E.	5	.....	11	14	12
Burke, Thos. F.	2	.....	.....	14	12
Campbell, Thos. M.	1	.....	.....	14	12
Comerford, Edw. J.	1	.....	.....	14	12
Corcoran, Timothy	26	.....	17	14	12
Goady, Thos. F.	6	.....	.....	14	12
Crane, Timothy	.....	.....	.....	14	12
Culhane, Robert G.	.....	.....	3	14	12
Conlan, Andrew	1	.....	.....	14	12
Davis, Harry W.	4	.....	½	14	12
Diehl, Anton B.	2	.....	.....	14	12
Doyle, Fatrick	8	.....	.....	14	12
Dunlea, Patrick F.	3	.....	1	14	12
Dynan, Thos. F.	2	.....	.....	14	12
Donahue, Joseph J.	.....	.....	.....	14	12
Douglas, Robert J.	.....	.....	.....	14	12
Doherty, Joseph F.	34	.....	1	14	12
Ellis, Fred M.	.....	.....	.....	14	12
Furbush, Joseph H.	.....	.....	.....	14	12
Greene, John F.	.....	.....	.....	14	12
Gutoski, Francis H.	.....	.....	.....	14	12
Ginty, Wm. B.	.....	.....	2	14	12
Griffiths, John J.	4	.....	.....	14	12
Gavin, Lochlin	.....	.....	.....	14	12
Hackett, Mortimer M.	7	.....	.....	14	12
Hezlitt, John A.	1	.....	.....	14	12
Higgins, Benj. F.	.....	.....	.....	14	12
Hill, Wm. H.	10	.....	2	14	12
Holt, James H. H.	10	.....	8	14	12
Horrigan, Edward F.	22	.....	.....	14	12
Healey, Patrick J.	1	.....	.....	14	12
Howe, William H. H.	.....	.....	.....	14	12
Ireland, Jerome D.	.....	.....	.....	14	12
Jewett, Dexter	26	.....	.....	14	12
Kelley, Joseph	3	.....	.....	14	12
Kelley, Michael J.	1	.....	.....	14	12
Kelleher, John	.....	.....	1	14	12
Kelley, Patrick D.	.....	.....	.....	14	12
Kelley, John W.	.....	.....	.....	14	12
La Marche, Frank D.	.....	.....	1	14	12
Largenton, Augustus J.	.....	.....	.....	14	12

NUMBER OF DAYS ABSENCE OF OFFICERS FROM DUTY.—Continued

	Sick Half Pay Allowed for Sixty Days	Sick Without Pay	Absent With Leave Without Pay	Vacations Pay Allowed	One Day Every 30 Days With Pay Allowed By Law
Patrolmen—Continued					
Law, Frederick W.	2	.....	.....	14	12
Leahy, Dennis F.	30	.....	.....	14	12
Leahy, Timothy F.	2	.....	.....	14	12
Lehane, Timothy	.....	.....	.....	14	12
Mahoney, Geo. J.	.....	.....	.....	14	12
Maloy, John P.	54	38	4	14	12
McCabe, Edw. J.	41	46	.....	14	12
McCaffery, Bernard	.....	.....	2	14	12
McCann, Chas. J.	1	.....	.....	14	12
McCarthy, Jere. H.	.....	.....	.....	14	12
McCorry, Jos. F.	.....	.....	.....	14	12
McCrehan, John E.	1	.....	.....	14	12
McFadden, Richard M.	4	.....	25	14	12
McKeown, Wm. F.	.....	.....	.....	14	12
Mullen, Robert E.	47	.....	2	14	12
Mullins, Wm. N.	2	.....	.....	14	12
Mulvaney, Simon J.	3	.....	1	14	12
Murphy, Peter J.	.....	.....	.....	14	12
McMahon, Michael	22	.....	75	14	12
McNamara, Patrick H.	.....	.....	.....	14	12
Moylan, Patrick E.	6	.....	1	14	12
Neilan, John P.	11	.....	1	14	12
Nelligan, Maurice P.	1	.....	.....	14	12
O'Brien, John J.	1	.....	.....	14	12
Parks, Joseph W.	.....	.....	.....	14	12
Presho, Chas. H.	5	.....	.....	14	12
Patten, Geo. A.	.....	.....	.....	14	12
Powers, John F.	60	.....	18	14	12
Real, Thos. J.	.....	.....	.....	14	12
Roberts, John W.	1	.....	2	14	12
Robertson, Wm. H.	.....	.....	.....	14	12
Rowe, Thos. P.	10	.....	1	14	12
Rowe, William H.	1	.....	2	14	12
Rice, Ralph R.	31	.....	1	14	12
Scully, Benj. C.	.....	.....	15	14	12
Sheehan, John J.	.....	.....	.....	14	12
Sheehan, Cornelius	.....	.....	1	14	12
Shea, Thos.	.....	.....	.....	14	12
Sullivan, Cornelius	.....	.....	1	14	12
Shannon, Joseph H.	.....	.....	.....	14	12
Shannon, Thos. J.	.....	.....	.....	14	12
Tansey, Joseph F.	1	.....	.....	14	12
Temple, Joseph C.	.....	.....	.....	14	12
Walsh, David H.	.....	.....	.....	14	12
Walsh, David L.	.....	.....	.....	14	12
Welch, Edw. J.	.....	.....	.....	14	12
Winslow, John E.	21	.....	.....	14	12
Wyman, Chas. W.	.....	.....	.....	14	12
Andrew, Frank	3	.....	.....	14	12
Dempsey, Lawrence P.	.....	.....	½	14	12
Walsh, John	.....	.....	.....	14	12
Ackerley, John M.	.....	.....	1	14	12
Gordon, Edw. C.	23	.....	.....	14	12
Fabry, Frank J.	.....	.....	.....	14	12
Cummings, John F.	1	.....	19	14	12
Curren, Michel J.	38	.....	1	14	12
Lynch, David E.	1	.....	.....	14	12
O'Dell, William L.	.....	.....	.....	14	12
Mello, Manuel G.	5	.....	.....	14	12
Horgan, Daniel J.	4	.....	.....	14	12

NUMBER OF DAYS ABSENCE OF OFFICERS FROM DUTY—Continued

	Sick Half Pay Allowed for Sixty Days	Sick without Pay	Absent With Leave Without Pay	Vacations Pay Allowed	One Day Every 30 Days With Pay Allowed By Law
Patrolmen—Continued					
Andrew, William M	.....	.....	1	14	12
Curtin, William A	43	.....	5	14	12
Guthrie, John J	27	.....	1	14	12
O'Connell, Chas. P	1	.....	3	5	12
Henry, Frank S	.....	.....	1	7	12
Collins, Fred V	.....	.....	.....	7	12
Reserve Patrolmen					
Dwyer, Edward E	1	.....	.....	4	12
Kearns, Thos. F	42	.....	.....	4	8
Tevlin, John J	.....	.....	.....	5	8
Gallagher, Jere. J	.....	.....	.....	5	8
Reagan, James F	.....	.....	.....	5	8
Russell, James D	.....	.....	.....	6	8
Mulqueeny, John P	.....	.....	.....	5	8
Bagan, John H	.....	.....	.....	.....	2
Sullivan, Eugene	.....	.....	.....	.....	2
Drivers					
Coffey, John T	.....	.....	.....	14	12
Sullivan, Dennis J	.....	.....	.....	14	12
Sullivan, John J	.....	.....	.....	14	12
Dow, Warren H	.....	.....	.....	14	12
McLaughlin, Frederick	.....	.....	.....	14	12
McCauley, John J	.....	.....	.....	14	12
Ward, William F	.....	.....	.....	14	12

Cambridge, April 1st, 1910.

To Frederick B. Pullen, Chief of Police:

Sir:—I herewith submit my annual report of the work of the Inspectors' Department from April 1st, 1910, to March 31st, 1911.

Property reported lost or stolen		$9,460 00
Property recovered		5,175 00
Cases investigated	875	
Civil matters investigated for City Solicitor	95	
Arrests made by Inspectors	93	
Convictions	48	
Cases pending	2	
Cases dismissed	17	
Suspicious persons arrested and released	10	
Arrests of fugitives from justice for other Police Depts.	16	

Respectfully submitted,

PATRICK J. HURLEY,
Chief Inspector.

Appropriations and expenditures for general supplies for the year from April 1st, 1910, to March 31st, 1911:—

Appropriation		$6,300 00
For buttons and trimmings and belts	$186 77	
Cleaning stations	304 25	
Cloth for uniforms	1,042 37	
Collars	16 80	
Disinfectants	39 95	
Expressing	7 20	
Electric lighting	396 20	
Furniture and repairs	47 30	
Food for prisoners	59 75	
Gas lighting	535 33	
Heating stations	890 00	
Horse shoeing	166 25	
Harness and repairs	68 10	
Horse clipping	14 00	
Hay and grain	585 95	
Horse hire in case of sickness	13 00	
Ice for stations	51 19	
Laundry	51 11	
Medical attendance and medicines	25 26	
Minors' licenses badges	31 25	
Photographic supplies	34 80	
Revolvers and repairs	110 00	
Postage stamps, bill heads, etc.	40 35	
Printing table sheets, reports and stationery	217 75	
Repairing vehicles	143 40	
Repairs and fittings for stations	55 82	
Record books, diaries	189 24	
Repairing bicycles	22 00	
Supplies for stations	215 63	
Subscriptions, includings ads. for criminals	45 00	
Telephones and telegrams	413 51	
Travelling expenses	275 30	
		6,294 83
Balance unexpended		$5 17

Amount appropriated and expended for salaries for the year from April 1st, 1910, to March 31st, 1911:—

Appropriation		$166,500 00
EXPENDED.		
April	$15,054 92	
May	12,415 93	
June	12,502 92	
July	15,588 16	
August	12,774 54	
September	12,695 68	
October	15,454 55	
November	12,656 80	
December	15,328 59	
January	12,912 11	
February	12,757 00	
March	15,004 05	
Total		165,145 25
Balance unexpended		$1,354 75

ORGANIZATION

The department consists of one chief, four captains, one chief inspector with rank of captain, three inspectors with rank of lieutenant, eight lieutenants, twelve sergeants, 102 patrolmen, 22 reserve patrolmen, eight wagon and ambulance drivers, and two matrons. There has been an increase of one captain, two lieutenants, three sergeants, six patrolmen, and provision for the appointment of one more wagon driver during the year.

ROSTER

Chief.

Frederick B. Pullen, January 2, 1871

Captains.

John F. Murray	Jan. 8, 1873	James E. Murray	May 18, 1870
John J. McBride	Apr. 27, 1887	David S. Stevens	Jan. 15, 1879

Chief Inspector.

Capt. Patrick J. Hurley, October 20, 1886

Inspectors.

Lieut. Jas. E. McKelty Feb. 19, 1889 Lieut. Michael Neilan Dec. 28, 1887
Lieut. Michael Brennan, April 24, 1884

Lieutenants.

James S. Alexander	Feb. 25, 1874	James A. Cox	Dec. 22, 1896
Herbert Gordon	Nov. 21, 1893	Patrick F. Murray	Apr. 7, 1884
James P. Hall	Apr. 27, 1884	James M. Keaney	Jan. 19, 1881
Wm. H. McMenimen	Apr. 21, 1880	Charles L. Pike	Feb. 11, 1880

Sergeants.

John E. Winslow	Jan. 22, 1889	Richard H. Aylward	Dec. 30, 1890
Orrin B. White	Feb. 18, 1889	Charles F. Aberle	Apr. 30, 1895
Frederick A. Robinson	Apr. 7, 1884	John J. Canney	May 28, 1901
Thomas P. Rowe	Apr. 1, 1892	Thomas J. Real	June 16, 1884
Frederick M. Ellis	Dec. 28, 1897	Edward J. Welch	Nov. 14, 1893
Timothy F. Leahy	Sept. 6, 1898	Joseph F. McCorry	Sept. 15, 1891

Patrolmen.

William H. Aberle	Sept. 6, 1898	John T. Mullalley	May 5, 1908
John M. Ackerly	Dec. 12, 1906	Patrick H. McNamara	Oct. 25, 1904
Frank Andrew	June 26, 1906	John P. Neilan	Aug. 8, 1899
William M. Andrew	Nov. 23, 1908	Morris P. Nelligan	Dec. 26, 1905
George T. Barrington	May 3, 1882	William L. O'Dell	June 10, 1908
William F. Biggane	Apr. 3, 1906	John J. O'Brien	Apr. 26, 1904
Elbridge S. Blen	May 3, 1882	Joseph W. Parks	Dec. 28, 1897
Charles E. Bradley	May 29, 1900	Charles H. Presho	Feb. 4, 1896
Thomas F. Burke	Apr. 26, 1904	Lochlin Gavin	Apr. 26, 1904
Thomas M. Campbell	Oct. 24, 1896	John J. Griffiths	Oct. 20, 1884
Edward J. Comerford	July 1, 1890	William B. Ginty	Mar. 24, 1903
Andrew Conlan	Apr. 3, 1906	Francis H. Cutoski	July 26, 1904
Timothy Corcoran	Jan. 7, 1880	William H. Hill	Dec. 28, 1897
Thomas F. Coady	Apr. 1, 1902	James H. H. Holt	Dec. 28, 1887
Timothy Crane	Nov. 6, 1903	Edward F. Horrigan	Aug. 8, 1899
Robert G. Culhane	July 18, 1903	Patrick J. Healey	May 3, 1904
John F. Cummings	May 5, 1908	Benj. F. Higgins	Jan. 22, 1879
Michael J. Curran	May 5, 1908	John A. Hezlitt	Apr. 12, 1892
Patrick Doyle	Jan. 3, 1877	Mortimer M. Hackett	Nov. 28, 1893
Lawrence P. Dempsey	June 26, 1906	Jerome D. Ireland	May 31, 1904
Anton F. Diehl	Aug. 8, 1899	Dexter Jewett	June 3, 1890
Thomas F. Dyan	May 31, 1882	Joseph Kelley	Apr. 3, 1906
Patrick F. Dunlea	Apr. 26, 1898	Michael J. Kelly	May 28, 1901
Joseph F. Doherty	Apr. 26, 1904	John Kelleher	Dec. 28, 1901
Joseph J. Donahue	Apr. 26, 1904	Dennis F. Leahy	Feb. 20, 1894
Robert J. Douglas, Jr.	Apr. 26, 1904	Patrick E. Moylan	June 26, 1906
Frank J. Fabry	May 5, 1905	John F. Powers	Apr. 26, 1904
Joseph H. Furbush	Feb. 11, 1880	George A. Patten	Apr. 26, 1904
Edward C. Gordon	Dec. 12, 1906	Ralph R. Rice	Feb. 18, 1896
Daniel J. Horgan	Nov. 23, 1908	John W. Roberts	Feb. 6, 1900
John W. Kelley	June 26, 1906	Wm. H. Robertson	June 30, 1891
Augustus J. Largenton	July 18, 1903	Wm. H. Rowe	May 24, 1892
Frederick W. Law	June 30, 1891	Thomas J. Shannon	July 26, 1904
Frank D. LaMarche	May 26, 1900	Thomas Shea	May 13, 1902
Timothy Lehane	Apr. 3, 1906	Cornelius Sheehan	June 2, 1903
David E. Lynch	June 24, 1897	Cornelius Sullivan	Apr. 7, 1884
George J. Mahoney	Dec. 28, 1897	John J. Sheehan	June 2, 1903
John P. Maloy	Sept. 17, 1889	Benj. C. Scully	Jan. 16, 1894
Manuel G. Mello	Sept. 29, 1908	Joseph H. Shannon	May 24, 1904
Edward J. McCabe	Apr. 12, 1892	Joseph F. Hansey	Apr. 3, 1906
Charles J. McCann	May 21, 1889	Joseph C. Temple	Nov. 17, 1896
John E. McGrehan	Apr. 27, 1884	David L. Walsh	Aug. 8, 1899
Richard McFadden	Aug. 8, 1889	David H. Walsh	Oct. 27, 1896
William N. Mullins	Feb. 23, 1892	Chas. W. Wyman	May 3, 1898
Peter J. Murphy	Apr. 26, 1904	Harry W. Davis	July 23, 1901
Bernard J. McCaffrey	June 30, 1891	John Walsh	Dec. 12, 1906
Robert E. Mullen	Nov. 14, 1893	William A. Curtin	Jan. 13, 1909
Michael McMahon	Apr. 25, 1905	John J. Guthrie	Mar. 30, 1909
Jeremiah H. McCarthy	Apr. 12, 1892	Frank S. Henry	May 6, 1909
William F. McKeown	Apr. 12, 1892	Chas. P. O'Connell	May 6, 1909
Simon J. Mulvaney	Feb. 23, 1892	Frederick V. Collins	May 6, 1909

Reserve Officers.

Edward E. Dwyer	May 6, 1909	Thomas P. Kearns	Apr. 28, 1910
James F. Reagan	Apr. 28, 1910	Jeremiah J. Gallagher	Apr. 28, 1910
James D. Russell	Apr. 28, 1910	John H. Bagan	Oct. 18, 1910
John P. Mulqueeney	Apr. 28, 1910	Eugene Sullivan	Oct. 18, 1910
John J. Tevlin	Apr. 28, 1910	Francis A. McLaughlin	Mar. 26, 1911

Drivers.

John Coffey	Warren H. Dow	Dennis J. Sullivan
John J. McCauley	Frederick McLaughlin	William F. Ward
	John Sullivan	

Matrons.

Mary McEachern Catherine E. Goodwin

Pensioners.

Henry C. Jones	Charles C. Marston	John W. Deehan
Edward F. Belcher	Michael A. Ginty	Fred L. Ladd
William H. Graves	John Coulter	James A. Forristall
Bernard J. Roper	Frederick Apel	William H. H. Howe
	Michael J. Conry	

Two pensioners have died during the year and one patrolman placed on the pension roll.

One patrolman was discharged during the year for conduct unbecoming an officer and prejudicial to good discipline and one was permitted to resign while charges were pending. An appropriation of $36,000 was made during the year for the purpose of making the much-needed alterations in the building where Headquarters and Station 2 are located, as recommended in my last report, but for some probably good reason nothing was done beyond preparing the plans. The ensuing year I trust will see the desired improvement accomplished.

RECOMMENDATION

In order to bring the department up to a more perfect state of efficiency I recommend the installation of the flashlight system in connection with our present signal box system, by which means any or all patrolmen on street duty could be called at once in case of an emergency instead of having to wait until each one sends in his duty call, the notification thus extending over several hours.

Respectfully submitted,

FREDERICK B. PULLEN,
Chief of Police.

REPORT OF OVERSEERS OF THE POOR

April 1, 1910, to April 1, 1911

CENTRAL SQUARE BUILDING,
CAMBRIDGE, April 11, 1911.

To His Honor, the Mayor, and the City Council of the City of Cambridge:—

GENTLEMEN:—The Board of Overseers of the Poor, as required by the City Charter, presents herewith the annual report for the year April 1, 1910, to April 1, 1911.

At the annual meeting held May 2, 1910, Henry H. Winslow was again re-elected chairman for one year.

There have been no changes in the membership of the Board during the year, but through the death of the Secretary, Col. David P. Muzzey, on August 3, 1910, the Board lost a faithful and efficient officer.

A special meeting was called to take action on the death of the Secretary and the following resolutions were adopted:—

"The Almighty Ruler of the Universe has called to his final home David P. Muzzey, who has served as Secretary of the Board of Overseers of the Poor of Cambridge from May 7, 1877, to August 3, 1910.

"Mr. Muzzey has been a faithful officer, kind to the people who were by reason of unfortunate circumstances obliged to meet him in his office.

"Obliging to all, faithful in the performance of his duties, of valuable assistance to the Overseers of the Poor, setting an example worthy to be followed by his successor in office,

"Resolved, that the Overseers of the Poor hereby express their deep sorrow at the loss of Mr. Muzzey, and extend to his family their sympathy.

"Resolved, that these resolutions be spread upon the records, and a copy thereof transmitted to his family."

Following the death of Mr. Muzzey, Mr. Joseph P. Hackett was appointed acting secretary and the Civil Service Commission was requested to examine applicants for the position of Secretary to the Board and furnish a list of eligibles from which a secretary might be

selected. The Civil Service Commission complied with this request, and on November 8, 1910, James E. Finnegan was elected to fill the position.

On March 21, 1911, in joint convention, the City Council elected Frank McLaughlin, Overseer of the Poor, for a term of five years from May 1, 1911, succeeding Henry H. Winslow, who declined re-election.

The cost of the pauper department from April 1, 1910, to April 1, 1911, is as follows:—

	Expenditures	Receipts	Net Cost
Outside Aid	$26,884 40	$2,729 21	$24,155 19
City Home	22,000 35	874 02	21,126 33
City Home Hospital	1,693 81	599 88	1,093 93
Farm	4,599 04	3,984 89	614 15
Net aggregate cost of poor			$46,989 60

There are now 17,492 histories on file at the office of the Board. During the year 560 histories of applicants for relief have been taken, comprising 2,426 persons; 809 males, 1,617 females, 743 adults, 1,683 minors.

The Superintendent of the City Home reports that 374 persons were cared for during the year, an average of 161 per month, 171 being present on March 31, 1911. There have been 33 deaths, the youngest 5 days, and the oldest 86 years. There have been 100 more inmates cared for than last year, and the capacity of the Home has been taxed to its limit.

The Superintendent also reports that the receipts for the past year have been the largest in the history of the department.

During the past year the number of persons at institutions for whom the City is liable is as follows:—

City Home	374
Cambridge Hospital	8
Cambridge Relief Hospital	27
Holy Ghost Hospital	3
Boston City Hospital	125
Boston Children's Hospital	1
Waltham Hospital	1
Wellesley Convalescent Home	1
Mass. Hospital School	12
Boston Almshouse	2
State Farm, Bridgewater	1
State Infirmary, Tewksbury	29
Total	584

The report of the City Physician shows that he made 1,139 visits to 175 patients at the City Home, and 1,065 visits to 787 persons outside; 119 persons were sent to hospitals for treatment, this number including 79 persons sent to City Home Hospital.

There were 28 paying patients at the City Home Hospital, the total receipts being $599.88. The cost of medicine and surgical appliances for the City Home was $359.55, and for outside sick poor, $407.54.

As many of the beds at the City Home Hospital are occupied for long periods of time by chronic cases, the City Physician recommends that additional beds be provided to care for acute cases.

Respectfully submitted,

HENRY H. WINSLOW, *Chairman,*
JOHN R. McCOOL,
JAMES F. MULLEN,
GEORGE P. O'BRIEN,
PATRICK J. CALLAGHAN,
Overseers of the Poor.

REPORT OF CITY PHYSICIAN

CAMBRIDGE, MASS., March 31, 1911.

To the Honorable, the City Council of Cambridge:—

GENTLEMEN:—The report of the City Physician for the twelve months ending March 31, 1911, is hereby rendered:—

CITY HOME

Number of visits to the City Home	304
Number of patients at City Home	175
Number of persons attended there	575
Number of professional visits to the same	1,139
Number of births at City Home	0
Number of deaths at City Home	11
Cost of medicines and surgical appliances	$395 55

OUTSIDE AID

Number of persons attended for Overseers of Poor	787
Number of professional visits to the same	1,065
Number of persons sent to hospitals for treatment	38
Number of outside births	10
Number of outside deaths	9
Cost of medicines and surgical appliances	$407 54

DEPARTMENTAL SERVICE

Number of persons visited at police stations	43
Number of professional visits to the same	46
Number of persons examined for the Law Department	5
Number of professional visits for the Law Department	5
Number of persons examined for injuries received	40
Number of professional visits to the same	84
Number of vaccinations for School Committee	369
Number of visits to the same	369
Number of call men examined for retirement	14
Number of visits to the same	14
Number of policemen examined for retirement	2
Number of visits to the same	2
Number of firemen examined for retirement	3
Number of professional visits to the same	3
Total number of persons receiving professional care	1,836
Total number of professional visits to the same	2,727

CITY HOME HOSPITAL REPORT FOR THE YEAR ENDING MARCH 31, 1911

There were 98 patients admitted during the year April 1, 1910, to March 31, 1911. Among the 98 patients were 16 paying patients. There was one birth and 21 deaths.

Total revenue from all sources	$599 88
The appropriation from the City Government	1,693 81
Running expenses, nurses' salaries, etc.	1,693 81
Net running expenses for the year	1,093 93

We would like more room at the hospital for acute cases, as we have at all times quite a number of chronic cases whereby beds are occupied for long periods of time.

I wish to thank the Superintendent, Mr. Goodrow, the Matron, Mrs. Goodrow, the Secretaries, Messrs. Muzzey, Hackett and Finnegan, the Clerk, Miss Benson, and the Agent, Mr. Norris, for their kind and courteous treatment and material help.

Respectfully submitted,

WILLIAM G. BROUSSEAU, M. D.,
City Physician.

REPORT OF THE SUPERINTENDENT OF THE CAMBRIDGE CITY HOME

CAMBRIDGE, April 1, 1911.

To the Overseers of the Poor:—

GENTLEMEN:—The annual report of the Cambridge City Home for the twelve months ending March 31, 1911, is hereby respectfully submitted.

The whole number in the Home during the twelve months has been as follows:—

Males	235
Females	139
Total	374
Adults	345
Minors	29
Whole number in the Home March 31, 1911	171
Average number during the twelve months	151

Included in the whole number in the Home March 31, 1911, there are:—

IMBECILES

Males	1
Total	1

BLIND

Females	1
Total	1

EPILEPTICS

Males	1
Females	3
Total	4

Included in the whole number discharged during the twelve months are fourteen persons sent to other institutions, as follows:—

Long Island Almshouse	1
Somerville City Home	1
Holy Ghost Hospital	1
State Home	3
Worcester Insane Hospital	3
Board of Health (Day Camp)	3
State Infirmary, Tewksbury	2

Remaining in the Home March 31, 1911:—

Males	108
Females	62
Adults	1
Minors	1

All statistics of general interest will be exhibited by the following tables:—

TABLE I

Showing the number and sex of adult persons and minors of all classes received into the Cambridge City Home in each month of the twelve months ending March 31, 1911

Months	Adults		Minors		Total	Dependent Children		Neglected Children	
1910	M.	F.	M.	F.		M.	F.	M.	F.
April	7	7	3	3	20	0	2	3	1
May	14	4	0	1	19	0	1	0	0
June	9	2	1	1	13	1	1	0	0
July	9	5	2	3	19	2	3	0	0
August	12	6	0	2	20	0	1	0	1
September	11	8	0	1	20	0	1	0	0
October	19	6	3	1	29	3	1	0	0
November	14	7	1	2	24	1	2	0	0
December	13	5	1	0	19	1	0	0	0
1911									
January	19	7	0	0	26	0	0	0	0
February	7	4	1	0	12	1	0	0	0
March	9	9	0	0	18	0	0	0	0
Totals	143	70	12	14	239	9	12	3	2

TABLE II

Showing the number and sex of adult persons and minors of all classes discharged from the Cambridge City Home in each month of the twelve months ending March 31, 1911

Months	Adults		Minors		Total	Dependent Children		Neglected Children	
1910	M.	F.	M.	F.		M.	F.	M.	F.
April	9	8	3	4	24	0	3	3	1
May	17	2	1	0	20	1	0	0	0
June	10	2	1	2	15	1	2	0	0
July	11	7	2	3	23	2	3	0	0
August	8	5	0	2	15	0	1	0	1
September	12	7	0	1	20	0	1	0	0
October	6	4	2	1	13	2	1	0	0
November	6	8	1	2	17	1	2	0	0
December	9	4	2	0	15	2	0	0	0
1911									
January	8	5	0	0	13	0	0	0	0
February	7	3	1	0	11	1	0	0	0
March	11	6	0	0	17	0	0	0	0
Totals	114	61	13	15	203	10	13	3	2

PRODUCTS OF THE FARM AND THEIR APPROXIMATE VALUES

299	bushels beans	$167 00
96	bushels beets	57 25
80	bushels beet greens	8 00
808	dozen bunches of beets	134 28
12,625	cabbages	390 73
748	dozen bunches celery	550 85
30,370	cucumbers	438 60
1,142	bushels dandelions	340 90
1,305	dozen heads lettuce	172 20
460	dozen bunches onions	62 35
551	bushels onions	405 05
649	dozen bunches radishes	114 35
169	bushels rhubarb	56 30
376	bushels spinach	74 70
262	bushels tomatoes	121 75
136	bushels parsnips	104 60
275	dozen bunches carrots	154 90
3	bushels parsley	2 25
14,441	lbs. pork	1,405 54
888	dozen eggs	243 60
Strawberries, peas, corn, asparagus		40 00
		$5,045 20

Vegetables supplied Home, one year to April 1, 1911	$562 00
Eggs supplied Home, one year to April 1, 1911	222 00
Pork products	276 31
Cash receipts	3,984 89
	$5,045 20
Less expenses one year, ending March 31, 1911	4,599 04
Net gain	$446 16

COMPARATIVE TABLE OF CITY HOME, FARM, LEDGE AND HOUSE OFFAL RECEIPTS FOR TWENTY-NINE YEARS, FOUR MONTHS, ENDING MARCH 31, 1910

Years	Board	Chair Shop	Farm	General Sales	Stone	House Offal	Totals
1881	$822 56	.....	$378 50	.....	$2,529 01	$5,536 88	$8,766 95
1882	705 34	.....	436 54	.....	2,626 17	5,705 22	9,473 27
1883	1,174 96	.....	476 22	$14 19	2,622 00	5,819 55	10,106 92
1884	1,480 93	.....	316 76	.....	4,238 77	6,449 96	12,486 42
1885	2,035 58	.....	335 32	149 85	4,509 84	7,354 26	14,384 95
1886	613 93	$37 50	772 14	319 75	5,611 38	6,926 23	14,280 93
1887	514 64	634 19	1,595 10	241 37	4,684 14	6,856 59	14,526 03
1888	557 28	614 94	2,846 52	213 62	6,662 26	6,721 50	17,617 86
1889	274 84	479 28	3,681 59	144 36	5,564 18	7,324 61	17,471 06
1890	302 49	794 36	4,364 03	150 89	5,651 38	7,386 33	18,649 48
1891	1,201 33	844 62	5,213 68	161 71	6,107 86	7,716 77	21,245 97
1892	1,253 06	899 81	5,371 68	166 45	5,220 50	7,535 57	20,447 55
1893	703 70	325 86	6,400 64	210 09	5,826 74	7,033 52	20,500 05
1894	1,094 89	220 07	6,504 66	615 69	7,955 42	8,218 96	21,609 69
1895	622 77	77 00	6,512 63	160 19	8,265 14	9,045 55	24,682 78
1896	834 52	61 25	5,623 67	147 02	7,639 48	9,155 35	23,461 24
1897	1,294 65	3 60	5,348 47	137 33	10,335 16	7,228 79	24,348 06
1898	1,038 19	.....	5,730 13	277 40	2,172 60	7,264 09	16,482 41
1899	703 17	.....	6,049 47	142 54	.....	6,997 40	13,892 58
1900	611 57	.....	5,082 43	137 40	.....	7,322 05	13,153 45
1901	793 32	.....	5,173 83	82 60	.....	8,016 71	14,067 46
1902	826 69	.....	5,098 37	78 15	.....	9,722 83	15,726 04
1903	659 21	.....	3,922 64	526 43	.....	10,359 99	15,468 27
1904	969 54	.....	4,286 47	69 47	.....	11,729 75	17,055 23
1905	902 30	.....	4,964 10	66 39	.....	11,326 61	17,258 40
1906	807 96	.....	5,209 65	62 83	.....	10,565 96	16,646 40
1907	766 20	.....	5,486 29	67 68	.....	10,564 07	16,884 24
1908							
16 mos. to Mar.31,'09	842 97	.....	5,038 55	85 21	.....	16,174 80	22,141 53
1910	704 05	.....	4,313 19	72 47	.....	13,477 42	18,567 13
1911	793 91	.....	3,984 89	80 11	.....	15,758 46	20,617 37
Totals	$25,406 55	$4,992 48	$120,521 08	$4,580 69	$98,222 03	$261,295 78	$515,018 61

City Home Hospital receipts $599 88
" " " " since July 1, 1905 ... .$2,728 01

The ages of the inmates are as follows:

Ten between 80 and 90, thirty-eight between 70 and 80; forty-seven between 60 and 70; thirty-six between 50 and 60; twenty-four between 40 and 50; eleven between 30 and 40; four between 20 and 30, and one child with its mother.

Of those who died during the twelve months, five were between 80 and 90, seven were between 70 and 80, seven between 60 and 70, eight between 50 and 60, two between 40 and 50, one between 30 and 40, one between 20 and 30, and two children.

The average of those who died was 60 years.

The City Home has been taxed to its capacity the past winter, at times there being as many as 177 inmates to be cared for. This unusual number necessitated the purchase of much more bedding

and also of more food and clothing, which increased the expenses somewhat above those of the previous year. The cost per capita was $2.83 per week.

There is need of much repairing at the Home. A new boiler should be installed, and the wall on the north side of the main building needs pointing very badly.

There are 48 men employed in the Offal Department at present.

Expenses for the year were	$39,128 00
Receipts for the year	15,758 46
Net cost for year	$23,369 54

It will be seen from the above figures that the income of this department paid slightly above 40 per cent. of the running expenses for the year.

During the past year a concrete washstand has been built in the yard, and also a comfortable lounging house for the employees. Both these improvements were very much needed. Two new wagons have been added to the equipment.

In closing my report I wish to thank your honorable Board for your kind treatment, and also the officers and employees in the department under my charge for their courteous manner and efficiency.

Respectfully submitted,

C. E. GOODROW,
Superintendent.

TABLE OF EXPENDITURES

Bills Approved by Overseers of Poor, April 1, 1910, to April 1, 1911

Months	Outside Aid	City Home	City Home Hospital	Farm	House Offal	Total
1910						
April	$1,362 05	$1,800 96	$107 50	$445 30	$3,449 47	$7,165 28
May	1,838 55	1,710 47	122 69	454 32	2,842 79	6,968 82
June	2,328 79	1,732 17	130 22	653 17	3,516 13	8,360 48
July	1,646 33	2,003 42	149 13	567 70	3,532 63	7,899 21
August	2,968 52	1,698 48	110 22	633 04	3,099 39	8,509 65
September	2,118 86	1,602 16	187 42	343 00	2,919 58	7,171 02
October	1,760 51	1,854 13	122 95	330 82	3,595 17	7,663 58
November	2,033 25	1,937 05	148 20	215 05	3,050 18	7,383 73
December	2,707 47	2,030 80	170 74	203 79	4,088 54	9,201 34
1911						
January	3,551 15	1,955 40	133 07	282 71	3,204 03	9,126 36
February	2,264 83	1,982 94	128 83	212 06	2,783 86	7,372 52
March	2,304 09	1,692 37	182 84	258 08	3,046 23	7,483 61
Total	$26,884 40	$22,000 35	$1,693 81	$4,599 04	$39,128 00	$94,305 60

TABLE OF RECEIPTS

From April 1, 1910, to April 1, 1911

Months	Outside Aid	City Home	City Home Hospital	Farm	House Offal	Total
1910						
April	$197 10	$38 60	$24 75	$309 70	$803 34	$1,373 49
May	313 05	8 50	4 00	280 05	879 39	1,484 99
June	67 00	87 00	34 84	142 20	1,703 21	2,034 25
July	.....	34 44	124 14	682 23	852 81	1,693 62
August	13 30	37 54	34 63	405 53	959 43	1,450 43
September	.....	55 52	12 00	334 65	1,234 49	1,636 66
October	193 11	79 86	3 57	133 60	1,264 01	1,674 15
November	1,018 29	163 79	54 07	194 25	1,742 53	3,172 93
December	143 95	101 32	59 15	217 30	1,264 19	1,785 91
1911						
January	224 72	57 41	53 30	86 15	1,602 80	2,024 38
February	26 32	27 94	30 00	206 96	1,452 53	1,833 75
March	532 37	182 10	165 43	992 27	1,909 73	3,781 90
Total	$2,729 21	$874 02	$599 88	$3,984 89	$15,758 46	$23,946 46

OUTSIDE AID EXPENDITURES

April 1, 1910, to April 1, 1911

Months	Salaries	Expenses	Total
1910			
April	$371 78	$990 27	$1,362 05
May	267 00	1,571 55	1,838 55
June	267 00	2,061 79	2,328 79
July	333 75	1,312 58	1,646 33
August	249 74	2,718 78	2,968 52
September	224 00	1,894 86	2,118 86
October	355 00	1,405 51	1,760 51
November	314 93	1,718 32	2,033 25
December	421 25	2,286 22	2,707 47
1911			
January	337 00	3,214 15	3,551 15
February	337 00	1,927 83	2,264 83
March	409 50	1,894 59	2,304 09
Total	$3,887 95	$22,996 45	$26,884 40

CITY HOME EXPENDITURES

April 1, 1910, to April 1, 1911

Months	Salaries	Expenses	Total
1910			
April	$651 51	$1,149 45	$1,800 96
May	565 92	1,144 55	1,710 47
June	540 79	1,191 38	1,732 17
July	672 17	1,331 25	2,003 42
August	565 79	1,132 69	1,698 48
September	540 79	1,061 37	1,602 16
October	663 17	1,190 96	1,854 13
November	565 79	1,371 26	1,937 05
December	672 17	1,358 63	2,030 80
1911			
January	535 92	1,419 48	1,955 40
February	562 50	1,420 44	1,982 94
March	566 45	1,125 92	1,692 37
Total	$7,102 97	$14,897 38	$22,000 35

CITY HOME HOSPITAL EXPENDITURES

April 1, 1910, to April 1, 1911

Months	Salaries	Expenses	Total
1910			
April	$95 00	$12 50	$107 50
May	76 00	46 69	122 69
June	76 00	54 22	130 22
July	95 00	54 13	149 13
August	76 00	34 22	110 22
September	76 00	111 42	187 42
October	95 00	27 95	122 95
November	76 00	72 20	148 20
December	95 00	75 74	170 74
1911			
January	76 00	57 07	133 07
February	76 00	52 83	128 83
March	76 00	106 84	182 84
Total	$988 00	$705 81	$1,693 81

FARM EXPENDITURES

April 1, 1910, to April 1, 1911

Months	Labor	Expenses	Total
1910			
April	$363 50	$81 80	$445 30
May	374 00	80 32	454 32
June	374 00	279 17	653 17
July	556 50	11 20	567 70
August	410 29	222 75	633 04
September	323 00	20 00	343 00
October	285 25	45 57	330 82
November	188 50	26 55	215 05
December	180 00	23 79	203 79
1911			
January	152 00	130 71	282 71
February	140 00	72 06	212 06
March	152 00	106 08	258 08
Total	$3,499 04	$1,100 00	$4,599 04

HOUSE OFFAL EXPENDITURES

April 1, 1910, to April 1, 1911

Months	Labor	Expenses	Total
1910			
April	$2,721 00	$728 47	$3,449 47
May	2,123 00	719 79	2,842 79
June	2,161 75	1,354 38	3,516 13
July	2,629 25	903 38	3,532 63
August	2,107 00	992 39	3,099 39
September	2,251 75	667 83	2,919 58
October	2,875 25	719 92	3,595 17
November	2,302 50	747 68	3,050 18
December	2,933 75	1,154 79	4,088 54
1911			
January	2,314 25	889 78	3,204 03
February	2,173 50	610 36	2,783 86
March	2,385 00	661 23	3,046 23
Total	$28,978 00	$10,150 00	$39,128 00

OUTSIDE AID DEPARTMENT, APRIL 1, 1910, TO APRIL 1, 1911

Monthly Accounts	Secretary, Clerk, Visitor, Driver Aid, Wagon	Postage, Printing Stationery, Books	Gas Electric Light Telephone	Physician, Medicine Surgical Appliances	Undertaker Cemetery	Hospitals	Other Cities and Towns	State Farm Minor Wards State Hospital Mass. Hospital School	Outside Support	Groceries Fuel	Trans-portation	Repairs	Miscellaneous	Total
1910														
April.....	$371 78	$2 00	$14 87	$8 58	$10 00	$112 50	$76 05	.....	$311 78	$378 51	$64 60	.....	$11 38	$1,362 05
May.....	267 00	19 90	14 19	29 60	36 00	785 86	36 77	70 72	250 38	327 68	.....	.....	45	1,838 55
June.....	267 00	56 58	15 45	35 30	212 40	.....	226 48	775 87	336 82	390 44	11 00	.....	1 45	2,328 79
July.....	333 75	6 00	15 37	6 90	.....	8 00	267 16	71 52	379 73	269 30	38 15	$250 00	45	1,646 33
August....	249 74	11 06	14 47	25 01	18 00	868 51	829 45	167 95	331 79	387 69	56 00	.....	8 85	2,968 52
September.	224 00	75	15 61	95 64	18 00	.....	202 77	664 55	367 27	429 83	25 25	74 59	60	2,118 86
October....	355 00	179 10	14 76	16 55	.....	78 29	173 84	72 30	403 41	384 15	12 00	52 90	18 21	1,760 51
November..	314 93	47 52	13 68	20 89	.....	654 30	58 40	73 48	390 42	349 41	105 38	.....	4 84	2,033 25
December..	421 25	10 95	16 23	56 95	8 00	75 72	287 10	605 14	379 73	783 05	50 00	.....	13 35	2,707 47
1911														
January...	337 00	36 62	15 30	14 94	26 00	862 16	1,175 76	163 30	420 70	461 02	35 25	.....	3 10	3,551 15
February..	337 00	.....	16 35	36 42	.....	245 72	503 26	70 46	383 29	602 72	64 00	.....	5 61	2,264 83
March.....	409 50	28 00	15 60	60 76	114 00	177 13	33 60	503 44	293 84	602 07	12 55	.....	53 60	2,304 09
Total....	$3,887 95	$398 48	$181 88	$407 54	$442 40	$3,868 19	$3,870 64	$3,238 73	$4,249 16	$5,365 87	$474 18	$377 49	$121 89	$26,884 40

CITY HOME DEPARTMENT, APRIL 1, 1910, TO APRIL 1, 1911

Monthly Accounts	Superintendent Chaplain Organist Wages	Medicines Surgical Appliances Disinfectant	Ice, Meat Poultry, Fish Groceries Provisions	Dry Goods Clothing Boots and Shoes	Fuel	Gas Electric Motor	Hardware Furniture Plants	Repairs Painting	Lumber	Postage, Printing Stationery, Books	Telephone Transportation	Undertaker Cemetery	Miscellaneous	Total
1910														
April	$661 51	$7 40	$798 45	$235 63	.....	$26 25	.....	$30 15	.....	$14 00	$8 07	.....	$19 50	$1,800 96
May	571 92	54 80	779 89	68 02	$24 74	17 24	$1 50	126 77	$3 67	5 35	48 07	.....	8 50	1,710 47
June	546 79	58 88	636 17	71 56	76 33	10 20	216 66	50 03	.....	5 00	8 27	$6 00	46 28	1,732 17
July	672 17	22 52	953 21	111 36	80 15	7 14	68 00	.....	.....	6 00	7 82	.....	75 05	2,003 42
August	565 79	19 00	866 63	79 46	83 25	24 28	.....	1 90	.....	3 95	38 37	.....	15 85	1,698 48
September	540 79	35 12	594 11	252 13	63 52	10 88	.....	38 58	.....	.....	7 69	.....	59 34	1,602 16
October	673 17	56 34	718 48	86 81	87 20	19 69	120 50	63 89	.....	6 55	3 00	.....	18 50	1,854 13
November	573 79	32 40	879 70	157 77	.....	23 53	120 26	63 00	28 00	.....	50 60	.....	8 00	1,937 05
December	680 17	41 36	853 38	119 54	153 08	30 16	78 15	6 96	16 28	8 75	8 77	10 00	24 20	2,030 80
1911														
January	543 92	78 81	742 41	186 46	125 21	37 64	141 16	44 50	6 77	16 80	8 92	.....	22 80	1,955 40
February	570 50	15 92	868 94	67 64	322 76	43 08	5 27	22 39	.....	9 72	38 97	.....	17 75	1,982 94
March	574 45	59 40	824 70	57 39	.....	38 32	49 11	17 35	.....	4 00	20 15	26 00	21 50	1,692 37
Total	$7,147 97	$481 95	$9,516 07	$1,493 77	$1,016 24	$288 41	$800 61	$465 52	$54 72	$80 12	$248 70	$42 00	$337 27	$22,000 35

CITY HOME HOSPITAL, APRIL 1, 1910, TO APRIL 1, 1911

Monthly Accounts	Wages	Surgical Appliances	Medicines	Groceries	Hardware	Electric Light	Clothing	Repairs	Disinfectant	Fuel	Total
1910											
April	$95 00	.....	.....	$1 53	$1 85	$9 12	.....	.....	.....	.....	$107 50
May	76 00	.....	$21 75	3 93	.....	8 76	.....	$12 25	.....	.....	122 69
June	76 00	$19 00	14 29	5 45	3 70	.....	.....	.....	.....	$11 78	130 22
July	95 00	.....	10 43	3 67	.....	.....	.....	17 83	.....	22 20	149 13
August	76 00	29 25	.....	4 97	.....	.....	.....	.....	.....	.....	110 22
September	76 00	.....	19 60	91 82	.....	.....	.....	.....	.....	.....	187 42
October	95 00	.....	.....	9 00	2 75	16 20	.....	.....	.....	.....	122 95
November	76 00	.....	40 04	14 25	.....	7 92	.....	.....	.....	9 99	148 20
December	95 00	.....	21 50	5 16	.....	9 12	.....	.....	.....	39 96	170 74
1911											
January	76 00	.....	22 74	14 80	8 25	11 28	.....	.....	.....	.....	133 07
February	76 00	.....	36 43	5 84	.....	10 56	.....	.....	.....	.....	128 83
March	76 00	.....	14 00	52 62	3 95	8 52	.....	.....	.....	27 75	182 84
Total	$988 00	$48 25	$200 78	$213 04	$20 50	$81 48	.....	$30 08	.....	$111 68	$1,693 81

FARM DEPARTMENT, APRIL 1, 1910, TO APRIL 1, 1911

Monthly Accounts	Labor on Farm	Garden Seeds Plants	Clothing	Electric Light	Park Department	Fuel	Blacksmith Hardware Repairs	Lumber	Hay and Grain	Straw	Market Stand	Miscellaneous	Total
1910													
April	$363 50	.....	.....	$1 00	.....	.....	$68 80	.....	$12 00	.....	.....	.....	$445 30
May	374 00	$47 28	.....	1 00	.....	.....	24 46	.....	5 70	.....	.....	$1 88	454 32
June	374 00	64 23	.....	.....	.....	.....	20 10	$43 57	23 55	$27 72	$100 00	.....	653 17
July	556 50	.....	.....	.....	.....	.....	.....	.....	11 20	.....	.....	.....	567 70
August	410 29	.....	.....	3 00	.....	.....	10 50	.....	15 75	.....	.....	193 50	633 04
September	323 00	.....	.....	.....	.....	.....	8 50	.....	11 50	.....	.....	.....	343 00
October	285 25	9 05	.....	1 00	.....	.....	28 77	.....	6 75	.....	.....	.....	330 82
November	188 50	.....	.....	1 00	.....	.....	14 75	.....	10 80	.....	.....	.....	215 05
December	180 00	.....	.....	24	.....	.....	.....	.....	10 40	13 15	.....	.....	203 79
1911													
January	152 00	.....	.....	12	.....	.....	11 38	3 60	13 45	63 91	.....	38 25	282 71
February	140 00	12 50	.....	12	.....	.....	22 13	13 46	18 85	.....	.....	5 00	212 06
March	152 00	25 70	.....	.....	$25 63	.....	32 00	5 40	10 11	7 24	.....	.....	258 08
Total	$3,499 04	$158 76	.....	$7 48	$25 63	.....	$241 39	$66 03	$150 06	$112 02	$100 00	$238 63	$4,599 04

HOUSE OFFAL DEPARTMENT, APRIL 1, 1910, TO APRIL 1, 1911

Monthly Accounts	Wages	Blacksmith	Hay and Grain	Hardware	Lumber	Fuel	Clothing Repairs	Printing	Gas Electric Light	Horses	Wagon	Straw	Transportation	Miscellaneous	Total
1910															
April	$2,721 00	$67 15	$372 54	.....	.....	...	$183 50	...	$5 28	.....	.....	.....	...	$100 00	$3,449 47
May	2,123 00	34 05	368 64	$91 71	.....	...	217 15	...	3 24	.....	.....	.....	...	5 00	2,842 79
June	2,161 75	47 30	751 62	29 45	$30 08	...	165 85	...	.....	$300 00	.....	$24 93	...	5 15	3,516 13
July	2,629 25	48 25	301 30	.....	3 98	...	155 23	...	.....	250 00	.....	61 52	...	83 10	3,532 63
August	2,107 00	64 50	693 09	.....	3 30	...	21 50	...	.....	210 00	.....	.....	...	.....	3,099 39
September	2,251 75	34 50	416 65	.....	9 96	...	199 22	...	.....	.....	.....	.....	...	7 50	2,919 58
October	2,875 25	116 25	457 90	58 15	11 85	...	14 90	...	5 00	.....	.....	55 87	...	.....	3,595 17
November	2,302 50	67 15	317 16	12 00	179 82	...	171 55	...	.....	.....	.....	.....	...	.....	3,050 18
December	2,933 75	69 00	511 48	10 75	8 11	...	55 53	...	1 92	300 00	$195 00	.....	...	3 00	4,088 54
1911															
January	2,314 25	66 40	431 28	51 61	.....	...	137 48	...	5 76	.....	195 00	.....	...	2 25	3,204 03
February	2,173 50	108 30	309 20	.....	7 90	...	94 45	...	6 36	.....	.....	84 15	...	.....	2,788 86
March	2,385 00	109 79	147 60	59 62	.....	...	7 60	...	4 92	300 00	.....	.....	...	31 70	3,046 23
Total	$28,978 00	$832 64	$5,078 46	$313 29	$255 00	...	$1,423 96	...	$32 48	$1,360 00	$390 00	$226 47	...	$237 70	$39,128 00

REPORT OF THE TRUSTEES OF THE DOWSE INSTITUTE

CAMBRIDGE, April 1, 1911.

To the Honorable, the City Council of the City of Cambridge:—

As trustees of the Dowse Institute we have the honor of submitting the following report:—

The deed of gift under which the funds of the Dowse Institute are held gives the City Council visitorial power, and makes it the duty of the trustees to report to the City Council. By the terms of the gift the lectures and other entertainments presented by the Institute were to be instructive as well as interesting. With the purpose of emphasizing this feature of the gift the trustees have this year instituted the experiment of conducting lectures in school halls in different parts of the City, in order to offer the benefits of the foundation to as large a number of people as possible. The trustees acted in co-operation with the School Committee, who over a year ago had suggested such action. The School Committee has furnished the halls with lanterns, has advertised the lectures through the school children and has distributed the tickets. By the advice and with the hearty approval of the President of Harvard University, three professors were invited to conduct lectures in the school halls. Accordingly, six courses of three lectures each were given on geography, on botany and on the works of Dickens (illustrated by readings), in the halls of the Wellington, Webster and Peabody schools, two courses being given in each school. The lectures were well attended, considering the novelty of them, and the trustees are satisfied with their success. They hope to repeat them next year, and believe that it will be possible to secure even greater interest in them as they become better known to the citizens.

A small balance brought over from former years enabled the trustees to give in addition this year a course of entertainments similar to those of preceding years. Four entertainments were given, two of them by citizens of Cambridge. The entertainments were of a high degree of merit and deserved a better reception than was accorded them, so far as the number of those present was concerned.

The financial statement of the Treasurer is appended to this report.

Our report cannot be closed without a word of appreciation of the services of the retiring president, Mr. Frank A. Allen. He had been a permanent member of the Board of Trustees since the year 1878, having previously served ex officio while a member of the City Government. He has labored faithfully, zealously and sympathetically to make the Institute a power for good in the community.

W. A. BULLARD,
GEO. HOWLAND COX,
WILLIAM F. BROOKS,
IRVING N. LINNELL,
JOSEPH H. BEALE.

WILLARD A. BULLARD, IN ACCOUNT WITH DOWSE INSTITUTE.

Dr.		Cr.	
1910			
Cash balance	$304 49	Advertising	$60 00
City of Cambridge, interest	600 00	Printing	43 25
Sale of tickets	80 25	Lectures, Durell Hall	235 00
Interest on balance	3 44	Hall	100 00
		Expenses	12 00
		Lectures, Schools	360 00
		Cash balance	178 93
	$989 18		$989 18

REPORT OF THE INSPECTOR OF ANIMALS

CAMBRIDGE, April 1, 1911.

To the Honorable, the City Council:—

I have the honor to submit herewith my report as Inspector of Animals and Veterinarian for the year ending March 31, 1911.

Appropriation		$850 00
Salary	$700 00	
Medicines	143 23	
		843 23
Balance		$6 77

The cows have been examined twice and found to be in a healthy conditions as far as a physical examination will determine.

There have been no cases of rabies.

The number of visits to sick and lame horses belonging to the City, 724.

Respectfully submitted,

CHARLES E. HADCOCK, M. D. V.,
Inspector of Animals.

REPORT OF THE CITY MESSENGER

OFFICE OF CITY MESSENGER,
CAMBRIDGE, MASS., April 1, 1911.

To the Honorable, the City Council, Cambridge, Mass.:—

GENTLEMEN:—In compliance with the provisions of Section 3 of Chapter 8 of the Revised Ordinances of 1892, I submit my report for the year ending March 31, 1911, as follows, viz.:—

POSTAGE AND STATIONERY

Stock of stationery on hand April 1, 1910	$476 72
Purchased during the year	1,733 13
	$2,209 85

Deliveries were as follows:—

Assessors' Department	$91 30
Auditing Department	34 04
Board of Health	138 10
Bridge Commissioner	6 00
Cemetery Department	63 17
City Clerk Department	165 35
City Council Expenses	46 93
City Messenger Department	91 60
Clerk of Committees Department	89 45
Election Expenses (City Clerk)	109 31
Electrical Department	22 70
Engineering Department	24 02
Executive Department	68 96
Fire Department	60 74
Inspector of Milk and Vinegar	5 82
Law Department	12 21
Overseers of the Poor	40 00
Park Department	123 21
Police Department	33 07
Public Library Department	137 48
Sealer of Weights and Measures	5 60
Sewer Department	11 66
Soldiers' Aid Department	24 79
Street Department	81 86
Superintendent of Buildings	74 48
Registrars of Voters	14 35
Treasury Department	44 77
Water Department	73 76
Stock on hand March 31, 1911	525 02
	$2,209 85

During the municipal year annual documents have been received from the following cities and towns and are on file in the reference library :—

Arlington, 1909
Bangor, Me., 1910
Bedford, 1911
Belmont, 1910
Beverly, 1909
Boston, 1910
Brockton, 1909
Brookline, 1909
Burlington, Vt., 1910
Chelsea, 1909
Concord, N. H., 1909
Chicopee, 1909
Everett, 1909
Fall River, 1909
Fitchburg, 1909
Gloucester, 1909
Hartford, Conn., 1909
Holyoke, 1909
Haverhill, 1909
Lynn, 1909
Mass. State Manual, 1911
Medford, 1909, 1910
Melrose, 1910
Nashua, N. H., 1909
Newburyport, 1909
Newport, R. I., 1909
Newton, 1909
North Adams, 1909, 1910
Northampton, 1909
Pittsfield, 1910
Portsmouth, 1909
Salem, 1909
San Francisco, 1909
Somerville, 1909
Springfield, 1909, 1910
Taunton, 1909
Waltham, 1909
Watertown, 1910
Winchester, 1910
Woburn, 1909
Worcester, 1910

On the seventh of May, 1910, Mr. William E. McAnaul severed his connection with this office, where he had been an assistant eight years, to enter business for himself. He was always courteous and obliging, and with his resignation the City lost a conscientious and painstaking official who was well liked by all with whom he came in contact, more especially by his associates in and about the City Hall.

Yours very respectfully,

FRANK T. EVANS,
City Messenger.

REPORT OF THE TRUSTEES OF THE SANDERS TEMPERANCE FUND

The Trustees nominally in charge of this fund submit the forty-fifth annual report relative to this bequest.

Although the story concerning this gift to the City of Cambridge has been told with little variation of details year after year, an apparent misconception still exists of the conditions under which it was made and of the manifest desire and intent of the giver.

In the year 1864 the sum of ten thousand dollars was received into the City treasury from the executors of Charles Sanders, a graduate of Harvard College, and at one time a citizen of Cambridge. This money was taken with the understanding that it should constitute the basis of an annuity amounting to $600 to be paid to a missionary. It was prescribed in the will that the City should forever pay the interest thereon "as a permanent salary to some worthy man who has discretion and zeal for the cause, to be constantly employed as a missionary in the cause of temperance in reforming old drunkards and preventing young drunkards and abolishing as far as possible the use of all intoxicating articles."

The rate of interest current at the time of the donation was 6 per cent. per annum and the testator intended that the same should be paid to the missionary as his salary, which would amount to $600 a year. If the amount had been invested in contravention of the wishes of the donor it would have yielded a smaller amount and the City might have forfeited the money. The salary has been continued from year to year at the rate of $600 up to the present time. Missionaries have been appointed under the terms of the bequest and the City has endeavored to carry out to the fullest extent the intentions of the testator.

Since the endowment was given to the City many persons have served as missionaries, all of whom in their day were active workers in the cause of temperance, among whom are enumerated:—

Frederic Goodfellow, 1865, resigned.
John Close, 1866.
Rev. William R. Stone, 1867, 1868, 1869, 1872.
Samuel C. Knight, 1870, 1871, 1873, 1874.
Alonzo Stewart, 1875-1896 (died May 5, 1896).
James Hicks, 1896 to present time.

Mr. James Hicks, the present missionary as above shown, has held the position since the decease of his faithful predecessor, the venerable Alonzo Stewart. The work of Mr. Hicks has been thoroughly performed, without unnecessary publicity, and he has worked with an energy stimulated by the heartiest love for the duty committed to him.

He has felt it incumbent upon him to visit the homes of many unfortunate victims of the drink habit, and has put his heart in the effort to bring them over to the way of a better life. Many are the instances where he has brought happiness where misery had prevailed and changed existent sorrow to joy. He regards it as his duty to appear every day in our local court and make his appeal there in behalf of all unfortunates brought there by the destroying influence of intoxicating liquor. Many years of successful experience give him especial fitness for the good work in which he is engaged, and we are assured that his labors are deeply and thankfully appreciated by those who come within the circle of his influence.

In his report, submitted herewith, he gives in extended detail his own story of what he has done during the past year.

WILLIAM F. BROOKS,
EDWARD B. JAMES,
IRVING N. LINNELL,

Trustees of Sanders Temperance Fund.

CAMBRIDGE, March 31st, 1911.

To the Trustees, Sanders Temperance Fund:—

GENTLEMEN:—In accordance with your requirements and past custom, I herewith present my report for the year ending March 31st, 1911.

Throughout the year I have labored earnestly for the reformation of the drinking man, his home and family. I have advised with hundreds of young men regarding the drink habit and its baneful influence on their future lives, and so far as possible advised the families I have visited to abolish entirely the use of intoxicating liquors.

Many have been the men, young and old, who have heeded the warning word kindly given, and changed the course of their whole lives. If it were possible, in a report like this, to give instances of wonderful changes in the lives of individuals, nothing would give me greater satisfaction. I must satisfy myself to give a short account of my labors and the various channels through which I do my work.

The Third District Court, the sessions of which I have attended for the past fifteen years, gives me great opportunities to meet the very class that the philanthropic donor of the Fund intended should be reached by the Missionary.

There has been no day in all these years that I have come away without some kind word being spoken. It might be to some hopeless man, some broken-hearted mother, some wayward son or daughter, or would you ask the judge for one chance more and I will be a man amongst men. How often have I seen the tears wiped away in response to my appeal to the Court in behalf of some poor, almost hopeless one, for an opportunity to try again, which was granted by our kind-hearted Judge.

My experience has made me feel that the Court is the great schoolmaster that brings reformation to many an old-time drunkard. Some of our very best temperance workers in the City are men who have been many times before the Court, and who, through the means used by the Court's orders, have been disciplined into sober lives. They have been compelled to report to probation officers regularly, to attend reformed men's temperance meetings, to bring pledges from their clergy, and have been urged to attend their respective church services. Through the using of these means the drink habit has been driven out of their lives, and their minds filled with good desires and bright future prospects.

These men, when once having thoroughly made up their minds to be sober, always get employment, good people come to their assist-

ance, and they begin to feel they surely are what they never dreamed of being. How often it has filled me with pleasure to listen to their testimonies in our temperance meetings. The reformed men's temperance meetings are held weekly, the drinking man always being welcome. The pledge is given to men, women and children at almost every meeting. Most of these meetings I attend. I have been present at 183 such gatherings during the year. I have responded to many calls from outside temperance meetings and churches to give my experience in my work generally. I have attended many of the services in the House of Correction Chapel on Sunday mornings. I have collected many thousand pages of literature for the prisoners, and many visits have been made to our hospitals and City institutions, where I have left reading matter for the sick. I have collected suitable reading matter for the sick at the Holy Ghost Hospital, which was gratefully received.

I have made over fifteen hundred visits to the homes of the needy and the unfortunate, always a welcome friend. I never came away from these homes without feeling well paid for my errand of mercy.

I have collected cast-off clothing from the charitably disposed and delivered it to deserving poor. This I have done for many years past, and the gifts have proved a blessing to many a worthy home.

It has been my privilege, during the cold winter months, in many small ways, to assist the needy poor. Several have been aided with gifts of coal. I am deeply grateful to those who have this charity in their charge for the way they have responded to my recommendations in cases of real need.

I have hundreds of callers at my house during my evening office hours, composed of all sorts and conditions of men and women, with all kinds of complaints, seeking advice, all desirous of carrying their trouble into court. I have advised against such action in many cases until I made a visit to the home and investigated, and in most cases have been able to remove the discordant elements. Temperament and disposition have largely been the cause of the trouble.

With all right-minded citizens I am very much pleased that once again success has been ours at the late election in keeping the liquor traffic out of our City. Our churches are better attended, our schools filled with happy, well-clothed children, our homes are happy, and our streets safe to live on and walk through, and this year several hundred victims of strong drink less than that of the previous year have been brought before our District Court.

In conclusion, I feel deeply grateful for all the encouragement I have received from both clergy and laity, temperance societies, and most of all from the knowledge of the men made sober and the homes made happy.

May the blessing of Almighty God rest upon the temperance work of our City as a whole, and may fidelity to the cause be our constant aim.

Sincerely and respectfully submitted,

JAMES HICKS,

Missionary, Sanders Temperance Fund.

REPORT OF THE TRUSTEES OF THE BRIDGE CHARITABLE FUND

Herewith is submitted the thirty-fourth annual report relative to this Fund, the amount of which is on deposit at the Cambridgeport Savings Bank.

Following is a statement of the condition of the Fund up to the date of this report:—

Amount on deposit March 31, 1910	$2,608 23
Interest added to Jan. 20, 1911	92 07
Total amount on deposit March 31, 1911	$2,700 30

By the last annual report it appeared that the sum of $128.45 was then due the Overseers of the Poor, under the terms of the Bridge donation. As this sum was not paid over during the last year there is now due as before stated the additional sum of $61.38, the same being two-thirds of the last year's interest. The actual amount belonging to the Fund at the present time, after these dues shall have been paid, is as follows:—

Amount now on deposit	$2,700 30
Less two-thirds of Interest to January 20, 1911	189 83
Net sum actually belonging to this fund	$2,510 47

The history of this foundation has been many times recited and may be found in recent annual City reports.

The records of the Trustees are also open for examination by those interested in the history of the founder, Levi Bridge, and of his kinsman, Samuel J. Bridge, who generously co-operated in the effort to establish a charity fund in this City, which, while it might always be actively beneficial, would have a never-ceasing growth, until in the long process of time it would welcome an uncounted number to partake of its benefits.

The Trustees of the past year desire to call attention to the provisions of the gift, which invite others to add their contributions towards its enlargement. We trust that this appeal may not fail to bear a generous fruitage in many hearts.

WILLIAM F. BROOKS,
EDWARD B. JAMES,
IRVING N. LINNELL,

Trustees of Bridge Charitable Fund.

REPORT OF THE AGENT OF SOLDIERS' AID

OFFICE OF THE SOLDIER'S AID DEPARTMENT,
CAMBRIDGE, March 31, 1911.

To the Honorable, the City Council of the City of Cambridge:—

GENTLEMEN:—I herewith submit the seventh annual report of the Soldier's Aid Department, with an account of the receipts and disbursements for the year ending March 31, 1911.

The matter of disbursing aid to the needy and worthy veterans and widows of the Civil and Spanish wars is something that requires a great deal of study and care, and in order to do justice to the State and City, while meeting the needs of the applicants, one must keep well in touch with the law, as well as to feel assured that no one suffers who deserves and requires assistance. It is thought by many that the aid is the same as a pension, and that one has only to prove his honorable service in order to receive benefits. Such is not the case, and it was never intended to be so. That the law has been abused is true, although of late years very few if any such cases have been known to occur. It is not enough that the applicant was faithful in his military or naval service during the war. He must be a citizen of the Commonwealth, and in such necessitous circumstances as to need assistance; and his condition must not have been caused by idleness or intemperance, as, in the case of the latter, the aid can be stopped or refused if the State Commissioners so decide. The disbursement of aid is done under the laws of the State, and the municipal authorities are really the guardians of those who from necessity are compelled to ask for relief.

With the foregoing facts in view, your Committee on Soldier's Aid during the past year have tried to be just in all their dealings, and while as far as possible they have relieved the needy, they have also kept in mind the finances of the City. No worthy or needy veteran or widow has applied in vain, and every case has been carefully considered before final action was taken. The examination made last June (and which occurs every two years) by the State Board caused a decrease in the State Aid Roll; therefore the appropriation asked for at the beginning of the year has not been entirely expended. In the examination before mentioned, facts were brought out, which, unless the same course had been pursued by the Committee, could not

have been ascertained, as it requires from eight to ten days for two persons to look into every case and pass upon its merits, which could hardly be expected from business men, who would necessarily be obliged to entirely neglect their own interests for at least a week. Under the present method the sworn statement of the applicant, with the investigation, made as far as possible by the clerk, is all that is required.

An exact estimate of the needs of the department is a hard problem to solve, as it varies so much each year. As the years advance the needs of those entitled to aid will undoubtedly increase, and there is no doubt but what the death rate will be larger.

In making the estimates for the present financial year due consideration has been given, and while it is not so large as has been previously estimated, a small increase over last year has been asked for.

The following statement shows the losses and gain in beneficiaries during the year, as well as the receipts and expenditures:—

Total number of beneficiaries March 31, 1910	461	
Lost during the year	76	
		385
Gained during the year		35
Balance on rolls March 31, 1911		420
Appropriation for the year		$29,000 00

EXPENDED

Pay-rolls, State Aid	$12,784 00	
Pay-rolls, Military Aid	553 00	
Pay-rolls, Soldier's Relief	12,286 00	
Other expenses, including burials, etc	2,091 26	
Total expended		$27,714 26
Relinquished to treasury		$1,285 74

I desire to extend to the Committee on Soldiers' Aid my sincere thanks for the kindness they manifested towards each applicant, and in the many ways they have assisted me in performing the duties of the office. The close attention given to the several meetings has shown that the veterans are not to be forgotten.

EBEN W. PIKE,
Clerk Soldiers' Aid Committee.

CITY CLERK'S REPORT OF FEES AND LICENSES

OFFICE OF THE CITY CLERK, April 1, 1911.

To the Honorable, the City Council of the City of Cambridge:—

The undersigned respectfully submits an account of the sums received for fees and licenses during a period of twelve months from April 1st, 1910, to April 1st, 1911, to wit:—

FEES

Recording Mortgages, Assignments, etc.	$613 27	
Marriage Certificates	1,267 00	
Certified Copies from Records	167 65	
Sundry Fees	70 40	
Total		$2,118 32

LICENSES

Auctioneers	$57 00	
Pool, Bowling Alley and Billiards	100 00	
Wagons, Carriages and Drivers	381 00	
Intelligence Offices	58 00	
Gasoline	21 00	
Junk Stores and Collectors	1,320 00	
Peddlers	148 50	
Detective	20 00	
Dogs	406 80	
Pawnbrokers and Small Loans	170 00	
Fireworks	68 00	
Sale of Ice Cream, etc., on Lord's Day	230 00	
Sundries	72 00	
		3,052 30
Grand total		$5,170 62

The foregoing amount has been paid into the City Treasury. The receipts from dog licenses have been $5,211.00. Of this amount the City Clerk's fee (twenty cents for each license issued), which amounted to four hundred six dollars and eighty cents ($406.80), is included in the above list of fees. The balance, amounting to $4,804.20, has been paid to the County Treasurer.

Respectfully submitted,

EDWARD J. BRANDON,
City Clerk.

REPORT OF THE TRUSTEES OF THE CAMBRIDGE PUBLIC LIBRARY

To the Honorable, the City Council of the City of Cambridge:—

The Trustees of the Cambridge Public Library respectfully submit this their fifty-third annual report, covering the year ending March 31, 1911.

In the accompanying report of the librarian may be found a full account of the work of the past year, to which the trustees refer you herewith. In their report the trustees desire to call the attention of your body to some of the needs of the library which have just been met, and more especially to two other needs for which adequate provision ought soon to be made.

During the past year the central library building has been brought into a better state of repair and service than ever before, by continuing the work of repainting to the outside of the building, and by a complete change of lighting from gas to electricity, so that now there is no occasion for the trustees to repeat the request of previous years for an additional appropriation to provide for this need. Each of the two branch libraries has also been cared for, the older one in East Cambridge being equipped with an additional space for the use of young children, and the newer one at North Cambridge being furnished with much-needed new shelving for books.

One of the pressing needs not yet met is a branch library in the neighborhood of Central Square. It should moreover be borne in mind that two buildings in that vicinity had been in turn the home of the library for the first thirty years of its existence, and that the location of the present building is not in the centre of population, which would be nearer Central Square. As a result the latter locality has been the loser, and compensation can be made in part by the establishment of an entirely new branch library. In preliminary plans for alterations of the old building of the Police department, just off Central Square the superintendent of buildings, Mr. Jeremiah F. Downey, has recognized the above need by making adequate provision for a branch library on the first floor of that building, and it is to be hoped that the City Council will this year take active steps towards the accomplishment of that end by the grant of a special appropriation.

Another need which has grown in importance within the last few years is a new children's room. Both this room and the adult ref-

erence room, with a seating capacity of only 76 and 60 respectively, have often been overcrowded, especially on Sunday afternoons. The present plan of the two rooms, with the open communication of two arches, would make it desirable and fitting to combine them as one large reference room, of which the present children's room could be the magazine and newspaper room, and the shelves used for additional reference books and for collections of books on special topics, as occasion might require. So much could be accomplished at very little expense. For a new children's room it is proposed to build a new wing running north from the west end of the main building, and parallel with the two existing wings, of which that for the stack will become the centre. Furthermore, the second floor of the proposed wing could be made into small lecture room for the special use of the school children and for the talks given them in the work of co-operation between the public library and the schools, which in the past have had to be given in the local history room, to the obvious inconvenience of any adults there present. With the erection of this wing both departments will have adequate provision for their needs, and the whole library service be accordingly improved.

By special arrangement with the executor of the Edward H. Whorf estate, the bequest of four thousand dollars ($4,000), of which announcement was made in March, 1910, and mention included in last year's report, became available in the following May. Mr. Whorf's valuable and unique collection of books relating chiefly to Mexico and Central America, which formed part of the bequest, was brought to the library in April, and the work of preparing it for this library was begun on June 1, the account of which is included in the report of the librarian below. This bequest had been formally accepted by the trustees on July 24, 1902, during the lifetime of the testator, in accordance with the following terms of his will:

> "I give and bequeath to the Board of Trustees of the Cambridge Public Library of the City of Cambridge in said Commonwealth the sum of one thousand dollars and all my books, pamphlets and maps, provided they shall be accepted by said Board of Trustees under the following conditions, viz:—that the said sum of one thousand dollars shall be invested or expended by said Board of Trustees for the benefit of said Library; that none of said books, pamphlets or maps shall ever be sold; that all the books, pamphlets and maps relating in any way to Mexico or Central America shall be kept by said Trustees as a part of said Library; that any other books, pamphlets or maps may be exchanged with or presented to other libraries so far as they may be duplicates or works not wanted in the Cambridge Public Library, or may be destroyed if imperfect or worthless; and that these conditions shall apply to any books, pamphlets or maps I may deliver to the Cambridge Public Library during my lifetime."

"I give and bequeath to the said Board of Trustees of the Cambridge Public Library the further sum of three thousand dollars, to be invested or expended by said Board of Trustees for the benefit of said Library, provided said sum shall be accepted by said Board upon the following conditions, viz.:—that all my books, pamphlets and maps relating in any way to Mexico or Central America shall be so catalogued as to make a special reference catalogue of works in the English language on the subject 'Mexico and Central America,' for the use of persons desiring to study that subject and to ascertain the correct collation of works on that subject; this bequest being made with the hope that said Board of Trustees will increase the usefulness of said catalogue by adding to it the titles and collations of all works in any language that said Library may have or hereafter acquire relating to said subject."

Announcement of the bequest to the city, on behalf of the public library, of the sum of one thousand dollars ($1,000), in accordance with the will of the late William Penn Harding, was received on October 28, 1910; formal acceptance of the bequest was made by the mayor, on behalf of the city and the public library, on November 17; and on March 20, 1911, the money was turned over to the city treasurer. The provisions of this bequest are stated in the following clause of the will:

"To the City of Cambridge, aforesaid (from whose Latin School I was graduated in the year 1849), the sum of One Thousand ($1,000—) dollars, the annual income of which shall be paid by the City Treasurer to the trustees of the Public Library of said city, now located on or near Broadway and Irving street, to be expended by them in the month of January in each year in the purchase of recent books on Science, Art or Travel, of a popular and instructive character; which books shall be placed in said library for general circulation. Said bequest shall be designated 'the William Penn Harding Fund,' which designation shall be printed or written in all books so purchased when placed in said library."

Within the year the membership of the board of trustees underwent two changes. In April, 1910, Mr. Joseph L. P. St. Coeur succeeded Dr. William J. Rolfe; in October Mr. Thomas F. Dolan resigned, on leaving Cambridge as his residence, and in his place was appointed Mr. William H. Lewis. In January, 1911, Fr. Walsh resigned his position as treasurer of the board of trustees, and was succeeded by Mr. St. Coeur.

On July 7, 1910, Dr. Rolfe died at Tisbury, on Martha's Vineyard, after a short illness, his death being hastened by the serious fall of the summer before, from which he had never fully recovered. His age was eighty-three. Dr. Rolfe began his service as trustee in 1895, which continued until 1902, and was renewed in 1907. His interest in the welfare of the public library was always keen and appreciative, and no one was more eager to serve in its behalf than he, both by pen and act. For him and with his aid was issued, on December 10, 1907,

the occasion of the eightieth anniversary of his birth, a "Bibliography of William James Rolfe," a pamphlet of 39 pages in the form of the monthly Bulletin. In 1908 he wrote for the trustees, with the aid of the librarian, a "History of the Cambridge Public Library," on the occasion of the celebration, on April 1, of the fiftieth anniversary of its establishment in 1858. He wrote also a number of the annual reports of the trustees, several in collaboration with other trustees, and the last two alone. His fame as editor, critic, and author lent distinction to his service as trustee, and his death was a loss to the library and to Cambridge.

The Trustees:

EDWARD C. WHEELER, President,
JOSEPH H. BEALE,
THOMAS N. CARVER,
EDWARD P. COLLIER,
WILLIAM H. LEWIS,
JOSEPH L. P. ST. COEUR,
JOHN F. WALSH.

REPORT OF THE LIBRARIAN

CAMBRIDGE, MASS., March 27, 1911.

To the Trustees of the Cambridge Public Library:—

GENTLEMEN:—The librarian herewith submits the following report of the work of the library during the last fiscal year:

SUMMARY OF CIRCULATION.

The total circulation of books during the past year, as shown in detail in Appendix I below, was 314,316, as against 310,394 for the previous year, a gain of 3,922. The total adult circulation from the central library was 122,970; that for the year before was 114,254, a gain of 8,716, which more than offsets the loss due to the closing of the library for repairs in the summer of year before last. The total count from the children's room for the same periods was respectively 26,399 and 29,082, a loss of 2,683. This loss is consistent with a decreasing supply of new books, which has been due to an insufficient appropriation for their purchase. For a similar reason the counts of circulation at nearly all the stations continue to show decreases, the figures for which, as well as those for the two branches, are reserved for consideration in their places below.

REPAIRS AT THE CENTRAL LIBRARY.

In continuance of the repairs so well carried out the previous year the central library building has undergone an extensive change in the form of lighting. Although the building had at its erection in 1889 been equipped for both electricity and gas, the former was at first chiefly used; later came an increasing use of Welsbach burners and arc lights; and last year a return to electricity alone. The first change was made in the stack, in which a saving of almost half has been effected by the addition of cut-off switches, only the four lights for one aisle being now turned on at once, as against eight for two aisles before. Better light, especially for the lower shelves, has been gained by the substitution of a newer pattern of holophane shade. To the public the most noticeable and most appreciated change has come in the reference room,

as to general effect and hygienic conditions, especially by the avoidance of odor, and, in summer, of excessive heat incidental to the use of gas. For greater economy in the service Tungsten lamps have been substituted for the ordinary kind, so far as has been thought advisable; in the reference room a further saving has been effected by the use of pull-sockets for each lamp; and throughout the building other conveniences in lighting have been provided. A considerable item of expense in these changes was the repair of the wiring connections in the basement below the reference room, as required by the city inspector, the original installation of twenty-one years ago having proved to be not only insufficient, but in some details dangerous. These changes were all completed early in the fiscal year, and were made by Thomas J. Daly, at different times covering a period of six months.

The repairs on the main building were, in September, extended to its exterior, all the wood and iron work being repainted by the J. L. P. Ackers Co., under contract as the lowest bidder. The main building now lacks only the renovation of the interior furniture, tables, chairs, and cabinet cases, in order to bring it into an entirely satisfactory condition of repair and service.

RETRENCHMENT.

The expense incurred in the changes in lighting and in the repainting of the exterior of the main building has necessarily cut into the amount of the appropriation available for the purchase of books, which became less than that for the previous year, the figures for general expenses of the two years being respectively $9,850 and $11,000. It has therefore been impossible to keep up the same service to the general public as in other recent years. Fewer duplicates of popular books could be bought, less variety given to the traveling libraries at the local delivery stations, and to the collections sent to the deposit stations and the schools. Naturally, less satisfaction on the part of all borrowers could be expected, and their persistent use of the books on hand, to an extent which enabled the total circulation to hold its own with a slight margin to its credit, may be assumed to be due in part to a realization of a condition to be deplored and to be considered beyond present remedy.

CATALOGUING DEPARTMENT.

By midsummer was completed the task of recataloguing the

older books in the stack, some 1,800 in number, which had been listed only in the printed supplement of 1891. The withdrawal of this supplement from public use has reduced by one the number of places still necessary to consult in order to find out whether a particular old book is in the library, and has formed the next step towards the completion of the task of recataloguing the large collection of some 10,000 books, which are still available only through two printed catalogues. A noticeable result of the above work is shown in the larger use of the books contained in the old supplement, now that they are duly entered in the main card catalogue. For this work the services of Miss Ella S. Wood, expert cataloguer, were continued from the previous year, the general oversight and classification of the books being undertaken by the assistant librarian, Miss Etta L. Russell, and the revision of the cards by the head cataloguer, Miss Eva Ferris Magee.

THE WHORF COLLECTION.

Upon the cataloguing department devolved another special task, the preparation of the large collection of books, pamphlets, and maps relating chiefly to Mexico and Central America, which formed part of the Edward H. Whorf bequest, an account of which has been given above in the report of the trustees. Work upon this collection began in June, 1910, and was completed within the fiscal year, so far as concerned the bound volumes, the unbound pamphlets, excerpts from magazines, etc., being left for a later time and opportunity to prepare. For this work Miss Wood was again employed, taking charge of both classification and cataloguing, with final supervision by the regular staff. The necessity of preparing two sets of cards for every book of the special collection, one for its own catalogue, in accordance with the terms of the will of the donor, and the other for the main general catalogue, added much to the whole task, the total number of cards being nearly 12,000.

A complete shelf-list of the collection had been prepared by Mr. Whorf himself, as a labor of love extending over many years. Each item, moreover, had been collated and labeled, generally on the back of the front cover, "Mexico and Central America," with the initials of the donor, "E. H. W.," at the end. In many of the books were also inserted descriptive clippings, cut largely from a copy of Allibone's "Dictionary of Authors," as a further witness to Mr. Whorf's bibliographical accuracy and painstaking scholarship.

The principle of choice adopted by Mr. Whorf was a very wide one, extending to all books, pamphlets, excerpts from magazines, and maps, which contained material in any way related to the special topic, and including the whole western part of the United States, as having once been Spanish American territory. His bibliographical exactness led him to include all editions obtainable of each separate work, and went the fullest length in his purchase of twenty-two copies of Emory's "Notes of a Military Reconnoissance from Fort Leavenworth to San Diego," each of which showed some difference of imprint, arrangement and number of illustrations, or other variation, however slight and indistinguishable to the unprofessional eye. The variations had already been made a topic of discussion in scientific journals, and this library already having one copy of the work, the Whorf copies have all been transferred to the library of the Arnold Arboretum, by request of Mr. Whorf, which had been made during his lifetime to its director, Professor Charles E. Faxon. Although much the greater part of the whole collection is made up of books on the special topic of Mexico and Central America, Mr. Whorf had developed interests in other directions, as shown in the considerable numbers of books on South America, a related topic, and on the distant topics of the polar regions, forestry, and genealogy.

This extensive collection of books is destined to bring a special distinction to our library, as its existence becomes generally known, and the wise provision by its donor of an adequate fund to purchase new books as they appear on the market will serve to increase its value and importance as time goes on. The following statement of items involved in the preparation of this collection will bear further witness to its extent and value:

Total number of books, pamphlets, excerpts, and maps in whole collection	4,203
Total number of books, pamphlets, excerpts, and maps in special collection on Mexico and Central America	3,345
Total number of duplicates and rejections	599
Total number of bound books, etc., accessioned and catalogued	2,195
Total number of titles accessioned and catalogued	1,928

BULLETIN LISTS.

The first of the special lists for the monthly bulletin was issued in May, 1910, in commemoration of the centenary of the birth of Margaret Fuller (May 23, 1810); the second came in June, entitled a "Reading List on Edward VII"; the third in October, on

the occasion of the recognition of Columbus Day (October 12); the fourth in February, 1911, entitled a "Catalogue List of Periodicals," which varied from similar lists of previous years in its limitation chiefly to current periodicals which are included in Poole's and other recognized indexes; the fifth in March, entitled a "Selected List of Books on Outdoor Life"; sixth and last came a "Reading List of Books on the Civil War," issued in connection with the fiftieth anniversary of its beginning, April 15, 1861, and of the celebration by the First Volunteers Citizens' Association, April 17, 1911, "to commemorate the departure from Cambridge of the First Volunteer Company for the War of the Rebellion." Marked copies of the issue of the Bulletin containing this list were sent to all the members of the executive committee of the above Association and to the Grand Army Posts of the city.

GIFTS AND BEQUESTS.

The completion of the second year of the Houghton Memorial gift of fifty dollars' worth of books has brought notable additions to its account. Among these are Villard's "John Brown, 1800-1859, a biography fifty years after"; Vedder's curious autobiography, entitled "The Digressions of V"; and Moorehead's two-volume work on "The Stone Age in North America".

By purchase from the income of the William E. Saunders fund have been added to the relics in the Cambridge room an old, broken cutlass, of the time of the American Revolution, and a British copper coin of George Third's reign, which were dug up during the work of excavation for the subway near Harvard Square.

Of individual gifts Mr. Frank P. Morrill presented the library with an emergency medicine box which was worn by Sergeant Conrad D. Kinnear during his service in the Civil War.

The account of the acceptance of the Whorf bequest and of the preparation of the collection of books included in it has been given above in the report of the trustees and in this report; and the announcement of a new bequest from the Harding estate is recorded in the report of the trustees.

LOCAL DELIVERY STATIONS.

Two changes, one in name only, are to be noted. Beginning with October 1, 1910, the Mt. Auburn district has been served by a new station at the drug store of F. K. Lynch, at 33 Belmont

Street; that in the grocery store at 2 Holworthy Street was discontinued after a long service of about fourteen years, chiefly in charge of P. A. Yerxa (1897 to 1906, with an interval of discontinuance in 1902 and 1903) and M. F. McGrath (1906 to 1910). The new quarters have proved to be much more attractive and convenient, and it is hoped that the circulation of books through that station may be gradually increased after the residents of that vicinity have become used to the change and recognize its opportunities. At about the same time W. E. Lane took nominal as well as actual charge of the long-established station at 535 Main Street, the death of Mr. Gove making him its sole proprietor.

In circulation the total figures are 3,845, as against 4,524 and 5,627 for the two preceding years respectively. This continuous and proportionate falling off during the last three years is, of course, due, primarily, to the lack of new books at the central library, upon which those in the neighborhood of each station are forced to draw, there being no separate collections, other than the traveling libraries, for the benefit of the local delivery stations. Among individual stations that at Dow's again leads, with a total circulation of 903; Lane's station follows with 525; and Lombard's foots the list with only 27. The showing of the last station has been so poor, due chiefly to the nearness of the North Cambridge branch in one direction, that it would have earlier been discontinued if it had not seemed to cover, in another direction, a portion of the city which would otherwise be remote from any part of the library service.

TRAVELING LIBRARIES

The traveling libraries have suffered even more in proportion than the local delivery service, the total circulation being 6,057, as against 9,529 for the previous year, and 10,068 for the year before that. The same reason for the falling off holds with even greater force in the case of the traveling libraries, for they have not been replenished to any considerable extent for the last two years. In comparisons of circulation Nelson's station leads, with a total of 1,345; the East Cambridge branch is next, with 801; Dow's is third, with 756, and Lombard's is again last, with only 77 for its count.

DEPOSIT STATIONS.

The same condition of inadequate supply of new and popular

books has affected the circulation through the deposit stations to an even greater extent than it has either the local delivery stations or the traveling libraries. The total count was 1,200, as against 2,214 the previous year. The best showing was made at the Y. W. C. A., which used 297 books; the next best by the Citizens' Trade Association, with a count of 152 books.

In due time after the completion of the new building of the St. Mary's Catholic Association a request came for a new deposit of books, and on the occasion of its delivery, February 12, the librarian gave an informal talk before the members of the Association, with comments on each author and work of the miscellaneous collection of fifty books then sent to its rooms.

Of new stations there have been added two at Engine 1 and Ladder 1, Brattle Square; the Nurses' Home, and the Cambridge Industrial Settlement at 39 Austin Street. It is to be deplored that lack of care at several of the deposit stations has resulted in serious losses, and it now seems necessary to place rigid restrictions upon the use of books through all the deposit stations, and to insist that full responsibility for the loss of books in the future shall be required of all organizations and institutions to which library books are loaned.

CO-OPERATION WITH THE SCHOOLS.

The main feature of co-operation between the public library and the schools continues to be the series of annual visits of the pupils of the ninth grammar grades. These visits began on Monday, October 17, 1910, and ended on Thursday, December 1. The same plan of instruction was followed, and that in the same hands of the librarian and the children's librarian, Miss Caira D. Hawkes. No further plans of co-operation could be carried out, much as they might be desired, owing to the pressure of the regular work within the library. The number of books sent to the schools during the past year was 6,961, as against 9,191 last year, a very considerable decrease, which has its full explanation in the fact that practically no books were bought or renewed for this part of the service. Of individual schools the largest user was the Webster school, with a count of 594; next came the Harvard school with 524. The count for the vacation schools and playgrounds was 407. The number of books chosen for each of the schools was about the same as for the year before. The circulation of books through the schools, as

well as from the children's room of the central library, seems likely to have been affected to some extent by the recent development of the system of promotion within grades, which has made necessary a closer application to the school work on the part of the brighter pupils.

EAST CAMBRIDGE BRANCH LIBRARY.

The work of enlargement of the East Cambridge branch library was begun on December 16 and completed within two weeks, the room being closed on this account for only one week. By this enlargement the branch will gain a considerable space in the rear of the main room for the special use of the younger children. This was obtained by tearing down the wall between the main room and three smaller back rooms which had not been in use for some years before. For the custodian a new charging desk outfit was provided and placed on the opposite side of the room from that occupied by the old desk, and in a position to command both sections of the enlarged room, of which the children's section fills the eastern end in the form of an alcove. For the younger children have been provided a large round table and a set of small chairs, like those at the North Cambridge branch. All this work has been done under the supervision of the superintendent of buildings, Mr. Jeremiah F. Downey, and it has brought a great improvement to the service at the branch, which ought to be sufficient for its needs for some years to come.

The total circulation of books from this branch has for some unaccountable reason fallen a little below that of the previous year, the figures being respectively, 65,867 and 66,951, a loss of 1,084. The closing of the branch for one week, during the time of its enlargement, would in part account for this decrease, which is the first to be recorded for a good many years back. The work of the branch is in the same efficient hands of Miss Mary Curtis as custodian, and the increase of responsibility, which the enlargement of the branch has brought upon her. emphasizes the need of a regular assistant who should work full time, and not only relieve the custodian of her extra burden but make possible longer hours of opening, as at the North Cambridge branch.

NORTH CAMBRIDGE BRANCH.

The newer branch in North Cambridge continues its record of steady increase in circulation, its figures being respectively 81,077 and 75,090, a gain of 5,987. Although provided, the previous year, with a new children's room, its quarters are even now none too large, and its

lack of shelf room for books was temporarily met by the addition of two sections of shelving along the front wall, and of a long double book-case, which has been placed in an open space to the left of the front part of the main room for adults, and by an extension of the shelves on two sides of the children's room, the magazine case being transferred from the outer to the inner side of the room.

This provision for the needs of the North Cambridge branch is a sufficient witness to its flourishing condition, and to the excellent service of its custodian, Miss Ellen M. Hayes, and her assistant, Miss Dorothea M. Gray, to whose efforts are due much of its popularity and efficiency. A further convenience has been the instalment, in November, 1910, of a separate telephone service, which has proved to be of great benefit, not only to the borrowers, but also to the staff of both the branch and the central library.

STAFF.

The position of reference librarian has undergone two changes within the past fiscal year. On October 1, 1910, Miss Ruth A. Sibley, now Mrs. Harold C. Haskell, resigned her position, after a most successful service of two and one-half years, in which an innate tactfulness and charm of personality showed to advantage in combination with a college education, technical training, and library experience. In her place came, on January 2, Miss Laura H. Durand, who had been the choice of the trustees as the result of an examination of candidates, held November 15 preceding. When appointed, Miss Durand was an assistant in the Attleboro public library, and she brought here to her aid this experience and her technical training as graduate, in 1907, of the library school of Syracuse University. Her service of only two and one-half months, cut short by a more lucrative appointment elsewhere, was yet sufficient to prove her competency not only to fill the place of her predecessor, but also to establish for herself a record, not equalled during the past decade, with respect to the preservation of order in the reference room under her charge. Her general fitness served her well also in her special work, and, like her predecessor, she gave efficient assistance, among other things, in the preparation of lists of books for the monthly Bulletin. Her gain in going has become our loss.

For most of the time before the coming of Miss Durand, this position was so well taken by one of the regular assistants, Miss Edith E. Sherman, that she was eventually chosen to fill it. Miss Sherman has had a training at Wellesley College, and a general experience of five

years in this library. Furthermore, her native ability as an artist, which her painting of the posters for the celebration of the Longfellow and the Holmes centenaries well proved, will be a help to her work in her new position.

The promotion of Miss Sherman causing a vacancy in the regular staff, Miss Elizabeth H. Walsh was appointed to her former place. Miss Walsh is a native of Cambridge and a graduate of its High school. In her apprenticeship as substitute assistant she had shown unusual fitness, especially when serving at the main charging desk and in the children's room, and her appointment has come quickly as its reward.

Illness has befallen members of the staff to a greater extent than during any previous year. Leaves of absence were granted to Miss Mary Ford, desk assistant, from June to September; to Miss Katharine A. Linehan, substitute assistant, from October to April; and to Miss Etta L. Russell, assistant librarian, from January to April. For the two months before, also, Miss Russell was compelled to be away from the library. In December her condition became so serious that she was obliged, under her doctor's orders, to leave Cambridge for a complete change and rest. Her recovery is now well assured.

During Miss Russell's absence, Miss Magee, the head cataloguer, has most successfully undertaken some of the duties of her position, especially the classification of new books, and Miss Katharine A. O'Donnell, assistant cataloguer, and Miss Hawkes, children's librarian shared the regular work of Miss Magee. In Miss Hawkes's place served Miss Walsh.

In June the librarian finished his term of service as president of the Massachusetts Library Club, with the sessions of its meeting at Princeton (June 8 and 9). In October he was chosen secretary and reappointed curator of the Cambridge Historical Society. For seven years he has served as a director of the Social Union.

In the death of Dr. William J. Rolfe, last July, the librarian has sustained a great personal loss. Common literary interests and frequent association with him in the preparation of the "History of the Cambridge Public Library," for the celebration of its fiftieth anniversary in 1908, had given unusual opportunities to know him, and to see him as he was in his own home; and it was the librarian's good fortune to have gained Dr. Rolfe's confidence, and to have received from him expressions of cordial approval of the work with him and for the library.

In closing this report the librarian takes occasion to renew his sense of obligation and gratitude for the assistance which he has received from both staff and trustees in his conduct of the affairs of the library.

Respectfully submitted,

CLARENCE W. AYER,
Librarian.

APPENDIX I

STATISTICS

ADDITIONS OF BOOKS

Total number of volumes in the library (including branches)..... 91,302

Central Library

Volumes in central library..... 82,437
Volumes added (5,074 new, 893 replacements)..... 5,967
Volumes recovered 49
Volumes condemned 1,668
Volumes destroyed on account of contagious diseases..... 31
Volumes missing 366

East Cambridge Branch

Volumes in East Cambridge branch..... 3,639
Volumes added (303 new, 428 replacements)..... 731
Volumes condemned 364
Volumes missing 73

North Cambridge Branch

Volumes in North Cambridge branch..... 5,226
Volumes added (695 new, 62 replacements)..... 757
Volumes condemned 110
Volumes destroyed on account of contagious diseases..... 5
Volumes missing 6

CLASSIFIED ADDITIONS

FUNDS, GIFTS, AND EXCHANGES: CENTRAL LIBRARY

CLASSES	General	Philosophy	Religion	Sociology	Philology	Science	Useful Arts	Fine Arts	Literature	History and Description	Biography	Fiction	Totals
Citizens' Subscription Fund	4	4	1	6	1		1	4	57	18	13		109
Cummings Fund.....	1		1	26			2	5	8	9	1		53
Fay Fund.....				2				2			2		6
William E. Saunders Fund			1							59	25		85
James A. Woolson Fund.....								85			11		96
Edward H. Whorf Fund..				2						4	5	1	12
Edward H. Whorf Bequest	44	5	27	208	21	139	109	22	40	1,324	187	69	2,195
Houghton Memorial Gift			1					2	2	5	5		15
Gifts (Misc.)..	19	4	8	130	10	28	48	7	10	19	34	7	324
Exchange.....		3	2	5			6	7	10	3	9	1	46
Totals	68	16	41	379	32	167	166	134	127	1,441	292	78	2,941

CLASSIFIED ADDITIONS—Concluded

CITY APPROPRIATION

(1) CENTRAL LIBRARY

CLASSES		General	Philosophy	Religion	Sociology	Philology	Science	Useful Arts	Fine Arts	Literature	History and Description	Biography	Fiction	Totals
Adult	New	202	44	60	152	8	64	128	68	183	146	95	265	1,415
	Dupl.	1	1		19		6	7	3	19	19	14	178	267
	Repl.	1	3	1	7	1	10	9	4	17	11	3	537	604
Juvenile	New			2	11		5	5	6	11	27	8	106	181
	Dupl.				2		1		1		3	1	15	23
	Repl.			1	6		9	3	5	5	12	3	229	273
Schools	New				1		3	2		2	30	9		47
	Dupl.				5						39	5	1	50
	Repl.				1		2			1	6	3	1	14
Traveling Libraries	New			1	12		3	3	2	9	11	4	105	150
	Repl.												2	2
Totals		204	48	65	216	9	103	157	89	247	304	145	1,439	3,026

(2) EAST CAMBRIDGE BRANCH LIBRARY

Adult	New	3		3	13	1	10	7	4	23	13	2	68	147
	Dupl.				1	1			1	4	2	3	45	57
	Repl.				2		2	2		22	16	7	218	269
Juvenile	New			1	4		2	1	2	7	21	4	44	86
	Dupl.											3		3
	Repl.			1	5		11	1	2	4	15	3	117	159
Gifts.....			1		1		1	1			1		5	10
Totals.....		3	1	5	26	2	26	12	9	60	68	22	497	731

(3) NORTH CAMBRIDGE BRANCH LIBRARY

Adult	New	2	3	11	21	3	21	16	14	49	30	23	260	453
	Dupl.												12	12
	Repl.				1							1	16	18
Juvenile	New			1	12		4	2	19	7	28	10	138	221
	Dupl.										1			1
	Repl.				3		1			1	4		35	44
Gifts.....			1	3	2		2							8
Totals		2	4	15	39	3	28	18	33	57	63	34	461	757

CIRCULATION

(1) COMBINED TOTALS

	Central Library Adult	Central Library Juvenile	East Camb. Branch	North Camb. Branch	Local and Deposit Stations	Traveling Libraries	Schools	Totals
First quarter, 1910	30,903	5,506	15,770	19,877	1,415	1,769	.....	75,240
Second quarter, 1910	25,378	5,496	10,313	17,324	1,088	1,450	1,756	62,805
Third quarter, 1910	31,471	7,402	19,410	20,566	1,113	1,075	2,667	83,704
Fourth quarter, 1911	35,218	7,935	20,374	23,310	1,429	1,763	2,538	92,567
Total, 1910-11	122,970	26,339	65,867	81,077	5,045	6,057	6,961	314,316

(2) CENTRAL LIBRARY

(A) Adult		(B) Juvenile	
Circulation	122,970		26,339
Average per day	437		87
Largest issue (January 28, 1911)	792	(January 28, 1911)	176
Smallest issue (June 10, 1910)	164	(September 8, 1910)	29
Books from stack used for reference	13,948		

Classified Circulation: (A) Adult

CLASSES	General	Philosophy	Religion	Sociology	Philology	Science	Useful Arts	Fine Arts	Literature	History and Description	Biography	Magazines	Fiction	Total
Circulation	1,676	2,312	1,752	4,965	553	2,040	4,091	5,818	11,191	9,017	4,695	7,814	67,046	122,970
Per cent	.0137	.0189	.0142	.0403	.0044	.0166	.0332	.0473	.0910	.0734	.0382	.0636	.5452	1.000

(B) Juvenile

Circulation	8	5	290	714	3	563	319	463	666	2,500	828	323	19,657	26,339
Per cent			.011	.027		.022	.012	.018	.025	.095	.032	.012	.746	1.000

(3) BRANCH LIBRARIES

East Cambridge		North Cambridge	
Circulation	65,867		81,077
Local delivery through branch	64		444
Traveling libraries	801		...
Average per day	216		265
Largest issue (November 28, 1910)	399	(March 18, 1911)	528
Smallest issue (August 17, 1910)	59	(August 11, 1910)	115

Classified Circulation: (A) East Cambridge Branch Library

CLASSES	General	Philosophy	Religion	Sociology	Philology	Science	Useful Arts	Fine Arts	Literature	History and Description	Biography	Magazines	Fiction	Total
Total. (A).....	209	140	532	2,000	205	2,557	2,276	1,190	3,637	7,276	1,837	3,272	40,736	65,867

(B) North Cambridge Branch Library

Total. (B).....	7	197	599	1,329	63	1,177	1,007	1,127	2,089	5,205	969	13,775	53,533	81,077

CIRCULATION THROUGH LOCAL AND DEPOSIT STATIONS

(Including Traveling Libraries)

STATIONS	Conley	Dow	E. Camb. Br.	Kidder	Laing	Lane	La Pierre	Lombard	McGrath & Lynch	Murphy	Nelson	N. Camb. Br	Social Union	Deposit Stations	Total
Local and Deposit....	289	903	64	109	258	525	380	27	135	363	348	444		1,200	5,045
Traveling Libraries ..	448	756	801	382	722	409	135	77	308	481	1,345		193		6,057
Total.....	737	1,659	865	491	980	934	515	104	443	844	1,693	444	193	1,200	11,102

SCHOOL CIRCULATION

Ellis.....	324	St. Mary.....	320
Fletcher	371	St. Paul	244
Harvard	524	St. Peter	160
Houghton.....	305	Shepard.....	281
Kelley	263	Sleeper	180
Morse.....	306	Taylor.....	230
Notre Dame	207	Thorndike	336
Peabody	459	Webster	594
Putnam	419	Wellington	436
Roberts.....	305	Vacation and Playgrounds	407
Russell	290	Total	6,961

APPENDIX II.

CITY APPROPRIATION.

CENTRAL LIBRARY.

Salaries.

Appropriation		$12,650 00
Expended		12,649 79
Amount unexpended		$0 21

General Expenses.

Appropriation		$9,850 00
Expenditures.		
Binding	$1,377 55	
Books, New	2,095 12	
Books for schools, New	38 77	
Books for traveling libraries, New	115 90	
Books replaced (total)	570 95	
Periodicals	819 74	
Bulletin	420 30	
Fuel	658 68	
Furniture	234 35	
Incidentals	619 38	
Insurance	.....	
Lighting	552 13	
Lighting alterations	490 04	
Local stations	853 50	
Printing, postage, and stationery	538 21	
Repairs	465 14	
		9,849 76
Amount unexpended		$0 24

EAST CAMBRIDGE BRANCH LIBRARY.

Salaries.

Appropriation		$1,000 00
Expended		999 96
Amount unexpended		$0 04

General Expenses.

Appropriation		$1,600 00
Expenditures.		
Binding	$324 26	
Books, New	274 75	
Books replaced	357 62	
Amounts carried forward	$956 63	$1,600 00

EAST CAMBRIDGE BRANCH LIBRARY, GENERAL EXPENSES.—Concluded.

Amount brought forward	$956 63	$1,600 00
Periodicals	128 05	
Furniture	179 85	
Incidentals	24 59	
Lighting	80 53	
Printing, postage, and stationery	47 18	
Repairs	182 80	
		1,599 63
Amount unexpended		$0 37

NORTH CAMBRIDGE BRANCH LIBRARY.

Salaries.

Appropriation	$1,500 00
Expended	1,499 85
Amount unexpended	$0 15

General Expenses.

Appropriation	$2,000 00

Expenditures.

Binding	$256 66	
Books, New	719 11	
Books replaced	44 54	
Periodicals	188 16	
Furniture	279 50	
Incidentals	120 49	
Lighting	173 76	
Lighting alterations	106 66	
Printing, postage, and stationery	77 75	
Repairs	33 14	
		1,999 77
Amount unexpended		$0 23

APPENDIX III (A)

SUMMARY OF THE REPORT OF THE TREASURER

From March 26, 1910, to January 27, 1911.

(1) FUNDS

CITIZENS' SUBSCRIPTION FUND.

Balance, March 26, 1910		$4 91
Interest on daily balance		2 85
Interest on bonds		220 00
Paper stock, etc		12 91
		$240 67
Expenditures.		
P. F. Collier & Son	$45 00	
Cunningham Bros.	12 50	
Charles Evans	15 00	
R. W. Gordon	30 10	
Little, Brown & Co.	8 00	
Old Corner Book Store	23 85	
Prince Society	5 00	
Smith & McCance	32 48	
		171 93
Balance on hand, January 27, 1911		$68 74

CUMMINGS FUND.

Balance, March 26, 1910		$12 65
Interest on bond		70 00
		$82 65
Expenditures.		
Southern Publication Society	$10 00	
		10 00
Balance on hand, January 27, 1911		$72 65

FAY FUND.

Balance, March 26, 1910	$3 82
Interest on bond	17 50
	$21 32
Balance on hand, January 27, 1911	$21 32

WILLIAM E. SAUNDERS FUND.

Balance, March 26, 1910	$0 91
Interest on bonds	245 00
	$245 91

WILLIAM E. SAUNDERS FUND.

Amount brought forward		$245 91
Expenditures.		
W. B. Clarke Co.	$13 50	
Essex Institute	2 00	
R. W. Gordon	38 53	
George E. Littlefield	85 03	
Massachusetts Historical Society	2 00	
Massachusetts Magazine	2 50	
Massachusetts Society of Mayflower Descendants	2 00	
New England Historic Genealogical Society	3 00	
Old Corner Book Store	8 10	
Charles H. Pope	7 50	
Salem Press Co.	2 50	
Charles N. Sinnett	2 00	
Smith & McCance	3 38	
H. M. Sylvester	15 00	
		187 04
Balance on hand, January 27, 1911		$58 87

EDWARD H. WHORF FUND.

Deposited in Harvard Trust Co.		$3,840 00
Interest on deposit		65 72
		$3,905 72
Expenditures.		
Clara M. Chick	$97 80	
R. W. Gordon	1 25	
Hammond Typewriter Co.	15 60	
Hersum & Co.	12 00	
Librarian of Congress	50 00	
Library Bureau	27 50	
Daniel P. MacKenzie	21 15	
Old Corner Book Store	6 34	
Elizabeth H. Walsh	21 60	
Ella S. Wood	450 00	
		703 24
Balance on hand, January 27, 1911		$3,202 48

JAMES A. WOOLSON FUND.

Balance, March 26, 1910		$1 46
Interest on bond		175 00
		$176 46
Expenditures.		
Oliver Ditson Co.	$53 63	
Caroline L. Himebaugh	22 00	
Old Corner Book Store	41 14	
		116 77
Balance on hand, January 27, 1911		$59 69

(2) FINES

Fines received and deposited with the City Treasurer	$577 00

APPENDIX III (B)

SUMMARY OF THE REPORT OF THE TREASURER

From January 27, 1911, to March 27, 1911.

(1) FUNDS

CITIZENS' SUBSCRIPTION FUND.

Balance, January 27, 1911		$68 74
Paper stock		1 00
		69 74
Expenditures.		
W. B. Clarke Co.	$5 00	
Eastern Library Supply Co.	30 00	
R. W. Gordon	6 38	
Harvard Trust Co.	5 00	
Old Corner Book Store	13 40	
Smith & McCance	8 16	
		67 94
Balance on hand, March 27, 1911		$1 80

CUMMINGS FUND.

Balance, January 27, 1911		$72 65
Expenditures.		
R. W. Gordon	$22 50	
Chas. S. Moore	38 00	
Old Corner Book Store	4 50	
		65 00
Balance on hand, March 27, 1911		$7 65

FAY FUND.

Balance, January 27, 1911		$21 32
Interest on bond		17 50
		$38 82
Expenditures.		
American Art Annual	$5 00	
Old Corner Book Store	18 75	
		23 75
Balance on hand, March 27, 1911		$15 07

WILLIAM E. SAUNDERS FUND.

Balance, January 27, 1911		$58 87
Interest on savings bank deposits		15 86
		$74 73

WILLIAM E. SAUNDERS FUND.

Amount brought forward			$74 73
Expenditures.			
Clarence W. Ayer	$2 00		
R. W. Gordon	25 70		
George E. Littlefield	11 70		
J. H. H. McNamee Co.	10 52		
Medford Historical Society	1 00		
New England Historic Genealogical Society	3 00		
Old Corner Book Store	1 35		
		$55 27	
Interest on savings bank deposits addition to principal		15 86	
			71 13
Balance on hand, March 27, 1911			$3 60

EDWARD H. WHORF FUND.

Balance Whorf bequest			$3,202 48
Discount on purchase of bonds			274 42
			$3,476 90
Expenditures.			
Boston Bank Note Co.	$6 00		
Clara M. Chick	15 90		
Daniel P. MacKenzie	1 80		
Old Corner Book Store	6 80		
Smith & McCance	3 71		
Ella S. Wood	93 00		
		$127 21	
Amount invested in bonds		3,000 00	
			$3,127 21
Balance on hand, March 27, 1911			$349 69

JAMES A. WOOLSON FUND.

Balance, January 27, 1911			$59 69
Expenditures.			
Oliver Ditson	$16 40		
J. H. H. McNamee Co.	6 00		
Old Corner Book Store	12 67		
Smith & McCance	1 99		
			37 06
Balance on hand, March 27, 1911			$22 63

(2) FINES

Fines received and deposited with the City Treasurer	$266 05

APPENDIX IV.

GIFTS.

(A) BOOKS.

	Volumes.
Acheson Oildag Co., Niagara Falls, N. Y.	1
American Dramatists' Club, New York, N. Y.	1
American Irish Historical Society, Boston, Mass.	1
Association of Life Insurance Presidents, New York, N. Y.	1
Batchelder, Samuel Francis	1
Baxter, Charles Newcomb, Boston, Mass.	26
Bill, F. C.	5
Bingham, Harry, Literary executors of	1
Boston Transit Commission, Boston, Mass.	1
Bowdoin College, Brunswick, Me.	2
Buckley, Mrs. John	3
Bunker Hill Monument Association, Boston, Mass.	1
California State Treasurer, Sacramento, Cal.	1
Cambridge, City of	7
Carnegie Foundation for the Advancement of Teaching, New York, N. Y.	3
Carnegie Hero Fund Commission, Pittsburgh, Pa.	1
Carpenter, Dr. Edward A.	1
Clark, Susie C.	2
Cogswell, Dr. Edward R.	1
Collier, P. F., & Son, New York, N. Y.	8
Coolidge, Asenath Carver, Watertown, N. Y.	1
Davis, Andrew McFarland	2
Debar, Joseph, Cincinnati, Ohio	1
Dennison, Mrs. E. W., Boston, Mass.	1
Ditson Co., Oliver, Boston, Mass.	1
Dryden, John F., Newark, N. J.	1
Durand, E. Dana, Washington, D. C.	1
Durrell, Harold Clarke	2
Eastman, Charles Rochester	1
Farnsworth, Edward Clarence, Portland, Me.	3
Fernald, Merritt L.	1
Flynn, Thomas J. & Co., Boston, Mass	1
Fobes, Walter K.	2
Gargan, Mrs. Thomas J., Boston, Mass.	1
Gillette, King Camp, Boston, Mass.	1
Gordon, Hanford L., Los Angeles, Cal	1
Gray, George Arthur, Atlantic, Mass.	1
Greene, J. D.	1
Harvard Dramatic Club	2
Harvard University, Museum of Comparative Zoölogy	4

Hecker, Eugene A. 1
Higginson, Thomas Wentworth 58
Hills, Thomas, South Boston, Mass. 1
Homan, J. A., Cincinnati, Ohio 1
Hunt, Mrs. Charles 3

Illinois State Historical Library, Springfield, Ill. 3

Leahy, William A., Boston, Mass. 1
Love, James Lee 4

McBride, John & Co., New York, N. Y. 3
McClurg, A. C. & Co., Chicago, Ill. 1
Massachusetts, Commonwealth of 37
Mayer, Alfred G., Maplewood, N. J. 2
Metropolitan Park Commissioners, Boston, Mass. 1
Melvin, James C., Boston, Mass. 1
Middlesex, County of 14
Minneapolis, City of, Minnesota 1
Modern View Printing and Publishing Co., St. Louis, Mo. 1
Moore, Mrs. Ada Small, Chicago, Ill. 1

National Education Association 1
National Irrigation Congress 2
National Lumber Manufacturers' Association 1
Nelson, Thomas & Sons, New York, N. Y. 1
New York, State of 1
New York State Library, Albany, N. Y. 3
New York Historical Society 2
Norton, Sarah 3

Piper, William Taggard 2
Providence Record Commissioners, Providence, R. I. 1

Raymond, George Lansing 1
Reed, William Howell, Boston, Mass. 1
Reynolds, Elsbery W., Chicago, Ill. 1
Robbins, Reginald Chauncy, Hamilton, Mass. 1
Rolfe, Dr. William James 1

Siegel, Henry, New York, N. Y. 1
Smithsonian Institution, Washington, D. C. 4
Sons of American Revolution. Massachusetts Society, Springfield, Mass. 1
Standard Oil Company, New York, N. Y. 3
Steiger, E. & Co., New York, N. Y. 1
Stickney, Frederick W., West Newbury, Mass. 1

Thompson, Slason, Chicago, Ill. 1

United States. Department of Agriculture, Washington, D. C..... 2
Department of Commerce and Labor 5
Department of the Interior 3
Interstate Commerce Commission 3
Library of Congress 4
Superintendent of Documents 9
Treasury Department 2
United States Brewers' Association, New York, N. Y. 4

Vaughn, Benjamin 1
Vaughn, Mrs. Benjamin 1

Westervelt, W. D. 1
Whitman, Allan Hiram, Boston, Mass. 1
Williams, Henry Morland 1
Wisconsin State Historical Society, Madison, Wis. 2
Woodman, Cyrus, Estate of 1
Woods, Henry Ernest, Boston, Mass. 1
Woods, John H. 2
World's Columbian Exposition, Directors of, Chicago, Ill. 1

Yale University, New Haven, Conn. 1
Young Churchman Co., Milwaukee, Wis. 2

OTHER GIFTS.

Morrill, Frank Percival. Emergency medicine box worn by Sergeant Conrad D. Kinnear during his service in the Civil War.

(B) BULLETINS OR SIMILAR PUBLICATIONS.

Boston Book Company.
Boston Public Library.
Brockton Public Library.
Brookline Public Library.
Brooklyn (N. Y.) Public Library.

California State Library, Sacramento.
Carnegie Library, Pittsburgh, Pa.
Cary Memorial Library, Lexington.
Chicago (Ill.) Public Library.
Cincinnati (O.) Public Library.
Cleveland (O.) Public Library.

District of Columbia Public Lbrary, Washington.
Dover (N. H.) Public Library.

Fitchburg Public Library.
Fletcher Free Library, Burlington, Vt.
General Theological Library, Boston.
Greenfield Public Library.

Hartford (Conn.) Public Library.
Haverhill Public Library.
Helena (Mont.) Public Library.
Hyde Park Public Library.

Indianapolis (Ind.) Public Library.

Lynn Public Library.

Malden Public Library.
Middleboro Public Library.
Milton Public Library.

New Bedford Public Library.
New York (N. Y.) Public Library.
Newton Free Library.

Osterhout Free Library, Wilkes-Barré, Pa.

Portland (Ore.) Library Association.
Pratt Institute Free Library, Brooklyn, N. Y.
Providence (R. I.) Public Library.

Rockford (Ill.) Public Library.
Rockville (Conn.) Public Library.
Rosenberg Library, Galveston, Texas.

St. Louis (Mo.) Mercantile Library Association.
St. Louis (Mo.) Public Library.
Salem Public Library.
San Francisco (Cal.) Public Library.
Scranton (Pa.) Public Library.
Silas Bronson Library, Waterbury, Conn.
Somerville Public Library.
Springfield City Library Association.

Toronto (Canada) Public Library.
Trenton (N. J.) Public Library.

Waltham Public Library.
Wilmington (Del.) Institute Library.
Winchester Public Library.
Wisconsin Free Library Commission, Madison, Wis.
Worcester Public Library.

(c) PERIODICALS.

Ambition.
Among the Deep Sea Fishers.

Berea Quarterly.
Boston College Stylus.
Bostonia.
Brown Alumni Monthly.

Century Path.
Chicago Banker.
Christian Science Journal.
Christian Science Monitor.
Christian Science Sentinel.
Coming Century.
Concrete.
Congressional Record.
Cook's American Traveller's Gazette.

Eastern and Western Review.
Emerson College Magazine.
Episcopal Recorder.

Good Government.
Gregg Writer.
Grinnell Review.

Harvard University Gazette.
Helping Hand.
Herald of the Cross.
Holy Cross Purple.

Massachusetts Labor Bulletin.
Museum of Comparative Zoology, Bulletin and Memoirs.
Museum of Fine Arts, Boston. Bulletins.
Museum News.

New Church League Journal.
New Church Review.

Outlook for the Blind.

Peabody Museum. Archaeological and Ethnological Papers and Memoirs.
Pitman's Journal.
Practical Engineer.
Protectionist.
Public.

Reminder.

School.
Spirit of Missions.
Sunset.

Temperance Cause.

United States. Bureau of Labor. Bulletin.
Patent Office. Official Gazette.

Western Monthly.

Wort, Das.

Young Crusader.

Library, college, and school reports and miscellaneous pamphlets have been acknowledged as received and are not included in the above list.

Annual Report of the City Auditor

City Auditor's Office,

April 1, 1911.

To the Honorable, the City Council:—

The undersigned herewith presents a statement of the receipts and payments of the City of Cambridge for the year beginning on the first day of April, 1910, and ending on the thirty-first day of March, 1911.

The first part of this report is devoted to an exhibit arranged upon the Schedules for Uniform Municipal Accounting as issued by the Bureau of Statistics of the Commonwealth of Massachusetts. Following these schedules are presented detailed statements arranged in the same order, together with the usual matters given in the Auditor's report, including a schedule of the city property.

Respectfully submitted,

CHARLES H. THURSTON,

City Auditor.

REPORT OF CITY AUDITOR

FOR THE YEAR ENDING MARCH 31, 1911

SCHEDULE A—I

RECEIPTS AND PAYMENTS OF THE FISCAL YEAR

Consolidated Statement

Cash Balance at the beginning of the year		$294,158 46
Actual Receipts* during the year	$3,620,303 95	
Actual Payments* during the year	3,408,966 11	
Excess of Receipts		211,337 84
		$505,496 30
Excess of temporary payments		161,000 00
Cash balance at end of year		$344,496 30

*Omitting temporary accounts.

SCHEDULE A—II

General Exhibit of Receipts and Payments of the Fiscal Year

	Receipts	Payments
*Revenue Accounts (Operation and Maintenance)	$2,812,115 40	$2,684,870 25
*Non-Revenue Accounts (Construction, etc.)	539,424 07	455,331 38
Agency Transactions	268,764 48	268,764 48
TOTAL ACTUAL CASH TRANSACTIONS OF THE YEAR (omitting temporary accounts)	$3,620,303 95	$3,408,966 11
Temporary Loans	235,000 00	395,000 00
Redemption of debt from Sinking Funds	566,000 00	567,000 00
Trust Funds	2,733 25	2,733 25
Boston El. share of Cambridge Bridge	257,500 00	257,500 00
	$4,681,537 20	$4,631,199 36

Actual Financial Result of the Operation and Maintenance of the City for the Year

Revenue Receipts, as above, from taxation and other sources, not including money borrowed	$2,812,115 40	
Revenue Payments, as above, for operation and maintenance (running expenses)		2,684,870 25
Excess of Revenue Receipts for the year		$127,245 15
Excess of Non-revenue Receipts		84,092 69
Excess of Receipts		$211,337 84

*These terms replace the former titles "ordinary" and "extraordinary."

SCHEDULE A—III

RECEIPTS

Fiscal year ending March 31, 1911

REVENUE

General

I. Taxes:		
1. Property	$2,059,977 18	
2. Poll		
3. Corporation		132,698 84
4. Street Railway (exclusive of B. E. R'y excise tax)		62,042 90
5. Bank		18,469 97
II. Licenses and Permits:		
a. Licenses		
1. Liquor		45 75
2. All Others		3,498 30
b. Permits		
1. Marriage		1,267 00
2. All Other		
III. Fines and Forfeits:		
1. Court		3,786 09
IV. Grants and Gifts:		
a. Grants from the County		
1. Dog Licenses		4,913 96
V. All Other General Revenue		30 68

Commercial

I. Special Assessments:		
a. To meet expenses for		
1. Street Sprinkling		34,649 47
2. Moth Extermination		1,569 11
b. To meet outlays for		
1. Sewers		3,409 11
2. Sidewalk and Curbing		10,842 26
II. Privileges:		
1. Public Service		12,507 20
2. Minor		28 50
III. Departmental:		
1. General Government		7,050 01
2. Protection of Life and Property		2,367 04
3. Health and Sanitation		27,111 67
4. Highways and Bridges		1,912 51
5. Charities		7,831 99
6. Soldiers' Benefits		15,471 00
7. Education		
8. Libraries		843 05
9. Recreation		3,318 27
10. Non-classified		208 30
IV. Public Service Enterprises:		
1. Water		366,645 85
2. Public Scales		12 92
3. Rental of Dock		
V. Cemeteries		18,483 14
VI. Administration of Invested Funds		
VII. Interest		25,824 70

Schedule A—III—Continued

PAYMENTS

Fiscal year ending March 31, 1911.

Maintenance

I. Departmental:	
1. General Government	$117,336 56
2. Protection of Life and Property	343,656 53
3. Health and Sanitation	231,576 25
4. Highways and Bridges	248,936 54
5. Charities	56,821 59
6. Soldiers' Benefits	27,394 26
7. Education	535,348 84
8. Libraries	25,598 76
9. Recreation	61,000 96
10. Unclassified	8,075 09
II. Public Service Enterprises:	
1. Water	80,254 08
2. Public Scales	14 09
III. Cemeteries	16,848 68
IV. Administration of Invested Funds	605 00

Interest

1. Loans for General Purposes	296,698 75
2. Loans for Public Service Enterprises	137,582 75
3. Loans for Cemeteries	245 00
4. Annuities	1,500 00
5. Temporary Tax Loans	3,679 44
6. Metropolitan Interest Requirements	66,802 47
7. State Assessment, Charles River Basin Loan	17,950 00
8. State Assessment, Grade Crossing Loan	484 00

Schedule A—III—Continued

RECEIPTS.

Fiscal year ending March 31, 1911

NON-REVENUE

Offsets to Outlays

I. Departmental:	
1. General Government	
2. Protection of Life and Property	
3. Health and Sanitation	
4. Highways and Bridges	
5. Charities	
6. Education	
7. Libraries	
8. Recreation	$314 79
9. Unclassified	9,032 50
II. Public Service Enterprises:	
1. Water	18,997 41
III. Cemeteries	

Municipal Indebtedness

1. Temporary Loans	235,000 00
2. Loans for General Purposes	479,800 00
3. Loans for Public Service Enterprises	16,500 00
4. Loans for Cemeteries	
5. Premiums	528 00
6. Unpaid Warrants of Current Year	
7. Boston Elevated for Cambridge Bridge	257,500 00
From Sinking Funds	566,000 00

Agency, Trust and Investment Transactions

I. Agency:	
1. Taxes:	
a. State	156,860 00
b. Non-resident Bank	3,101 79
c. County	108,787 44
2. Liquor Licenses Collected for the State	15 25
II. Trust:	
1. Perpetual Care Funds	2,723 25
2. Other Permanent Public Trust Funds	10 00
3. Income for Investment	
4. Private Trust Funds and Accounts	
III. Investment:	
1. Sinking Fund Securities	
2. Investment Fund Securities	
Total Receipts	$4,681,537 20

Schedule A—III—Continued

PAYMENTS

Fiscal Year ending March 31, 1911

Outlays

I. Departmental:	
1. General Government	$4,763 90
2. Protection of Life and Property	791 25
3. Health and Sanitation	77,295 62
4. Highways and Bridges	156,228 53
5. Charities	
6. Education	72,853 35
7. Libraries	
8. Recreation	52,607 56
9. Unclassified	
II. Public Service Enterprises:	
1. Water	48,306 60
III. Cemeteries	999 25

Municipal Indebtedness

1. Temporary Loans	395,000 00
2. Bonds and Notes from Sinking Funds	567,000 00
3. Bonds and Notes from Revenue	12,500 00
4. Metropolitan Sinking Fund Requirements	33,192 75
5. State Assessment for Abolition of Grade Crossings Loan Fund	6,100 00
6. State Assessment for Charles River Basin Loan Fund	6,381 00
7. State Assessment Smoke Abatement	532 16

To Sinking Funds

1. From Revenue	643,740 01

Agency and Trust Transactions

I. Agency:	
1. Taxes:	
a. State	156,860 00
b. Non-resident Bank	3,101 79
c. County	108,787 44
2. Liquor Licenses collected for the Commonwealth	15 25
II. Trust:	
1. Perpetual Care Funds	2,723 25
2. Other Permanent Public Trust Funds	10 00
Total Payments	$4,631,199 36

Schedule A—III—Concluded

RECAPITULATION—RECEIPTS.

Revenue:	
For Current Charges	$2,812,115 40
For Outlays	14,251 37
Offsets to Outlays	28,344 70
Municipal Indebtedness	989,328 00
From Sinking Funds	566,000 00
Agency, Trust and Investment Transactions	271,497 73
Total Receipts	$4,681,537 20
Balance on hand, beginning of year	298,158 46
GRAND TOTAL	$4,975,695 66

Schedule A—III—Concluded

RECAPITULATION—PAYMENTS.

Current Charges against Revenue:	
Maintenance and Interest	$2,281,409 64
Debt	58,705 91
Sinking Funds	352,754 70
Outlays	413,846 07
Premiums and Offsets to Outlays paid to Sinking Funds	290,985 31
Debt from Sinking Funds	567,000 00
Temporary Loans	395,000 00
Agency, Trust and Investment Transactions	271,497 73
Total Payments	$4,631,199 36
Balance on hand, end of year	344,496 30
GRAND TOTAL	$4,975,695 66

SCHEDULE A—IV

RECEIPTS

SOURCES OF RECEIPTS.	Revenue for Expenses	Revenue for Outlays	Total
GENERAL REVENUE			
1. TAXES			
Current Year:			
1. Property	$1,902,016 30		
2. Poll			
Previous Years:			
3. Property	157,960 88		
4. Poll			
From the State:			
5. Corporation	132,698 84		
Street Railway	62,042 90		
(Exclusive of B. E. R'y excise tax)			
7. Bank	18,469 97		
Total from Taxes	$2,273,188 89		$2,273,188 89
2. LICENSES AND PERMITS			
Licenses:			
8. Liquor	$45 70		
9. All Other	3,498 30		
Permits:			
10. Marriage	1,267 00		
11. All Other			
Total from Licenses and Permits..	$4,811 05		$4,811 05
3. FINES AND FORFEITS			
12. Court	$3,786 09		
13. Department Penalties			
14. Contract Violations			
Total from Fines and Forfeits....	$3,786 09		$3,786 09
4. GRANTS AND GIFTS			
Grants from Other Civil Divisions			
15. From State, for Education			
16. From State, for Armories			
17. From State, for Highway Purposes			
18. From State, for Health Purposes..			
19. From County, for Libraries	$4,913 96		
Gifts from Individuals:			
20. For Expenses			
21. For Outlays			
Total from Grants and Gifts.....	$4,913 96		$4,913 96
5. ALL OTHER GENERAL REVENUE			
22			
23	$30 68		
Total from All Other General Revenue	$30 68		$30 68

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Revenue for Outlays	Total
COMMERCIAL REVENUE			
6. SPECIAL ASSESSMENTS			
For Expenses:			
24. Street Sprinkling	$34,649 47		
25. Moth Extermination	1,569 11		
26. Other Purposes			
For Outlays:			
27. Sewers		$3,409 11	
28. Sidewalks and Curbing		10,842 26	
29. Other Purposes			
Total from Special Assessments	$36,218 58	$14,251 37	$50,469 95
7. PRIVILEGES			
30. Public Service	$12,057 20		
31. Minor	28 50		
Total from Privileges	$12,085 70		$12,085 70

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Expenses for Revenue	Outlays to Offsets	Total
8. DEPARTMENTAL			
8a. General Government			
Legislative:			
32. Aldermen and Council			
Executive:			
33. Mayor			
Financial:			
34. Auditor and Auditing			
35. Treasurer }			
36. Collector }	$3,587 55		
37. Assessments			
38. Other Finance Offices and Accounts			
Other General Departments:			
39. City Clerk			
40. City Messenger	1,323 12		
41. Law			
42. Election and Registration			
43. License Commissioners	1 34		
44. Public Works			
45. Engineering			
46. Superintendent of Buildings.....			
47. All Others			
Municipal Buildings:			
48. City Hall	2,138 00		
Total from General Government..	$7,050 01		$7,050 01

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
1. DEPARTMENTAL			
1a. General Government			
Legislative:			
1. Aldermen and Council			
a. Salaries and Wages	$4,653 00		
b. Other Expenses	3,176 85		
Executive:			
2. Mayor			
a. Salaries and Wages	5,736 02		
b. Other Expenses	521 78		
Financial:			
3. Auditor and Auditing			
a. Salaries and Wages	4,001 19		
b. Other Expenses	761 99		
4. Treasurer			
a. Salaries and Wages	13,556 37		
b. Other Expenses	3,150 09		
5. Collector			
a. Salaries and Wages } *b.* Other Expenses }	Included in treasurer		
6. Assessors			
a. Salaries and Wages	12,563 66		
b. Other Expenses	1,646 80		
7. Other Finance Offices and Accounts	85 00		
Other General Departments:			
8. City Clerk			
a. Salaries and Wages	7,200 23		
b. Other Expenses	1,065 17		
9. City Messenger			
a. Salaries and Wages	1,749 00		
b. Other Expenses	321 23		
10. Law			
a. Salaries and Wages	4,261 13		
b. Other Expenses	7,400 89		
11. Election and Registration			
a. Salaries and Wages	12,162 74		
b. Other Expenses	4,982 34		
12. License Commissioners			
a. Salaries and Wages			
b. Other Expenses			
13. Public Works			
a. Salaries and Wages			
b. Other Expenses			
14. Engineering			
a. Salaries and Wages	5,021 22		
b. Other Expenses	667 55		
15. Superintendent of Buildings			
a. Salaries and Wages	1,792 00		
b. Other Expenses	798 58		
16. All Others	313 20		
Municipal Buildings:			
17. City Hall			
a. Salaries and Wages	11,861 69		
b. Other Expenses	7,886 84	$4,763 90	
Total for General Government...	$117,336 56	$4,763 90	$122,100 46

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Totals
8b. Protection of Life and Property			
Police Department:			
49. Sale of Materials	$771 57		
50. Miscellaneous			
Total from Police Department	$771 57		
Fire Department:			
51. Sale of Materials	$2 40		
52. Miscellaneous			
Total from Fire Department	$2 40		
Militia:			
53. Armories			
54. Rifle Ranges			
Inspection:			
55. Inspection of Buildings			
56. Inspection of Wires	$568 43		
57. Sealing of Weights and Measures	951 95		
Forestry:			
58. Gypsy and Brown-Tail Moth Extermination			
59. Other Insect Pest Extermination	72 69		
60. Care of Trees			
Other Protection of Life and Property:			
61.			
62.			
63.			
Total from Protection of Life and Property	$2,367 04		$2,367 04

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
1b. Protection of Life and Property			
Police Department:			
18. Salaries and Wages	$158,636 25		
19. Horses and Care of Same	772 20		
20. Fuel and Light	1,854 06		
21. Equipment and Repairs	1,634 24		
22. Repairs on Buildings	62 87		
23. New Buildings			
24. Pensions	7,358 50		
25. Other Expenses	1,662 87		
Total for Police Department	$171,980 99		
Fire Department:			
26. Salaries and Wages	$113,343 53		
27. Horses and Care of Same	11,174 49		
28. Fuel and Light	3,693 27		
29. Hydrant Service			
30. Equipment and Repairs	10,979 89	450 00	
31. Repairs on Buildings	697 84		
32. New Buildings			
33. Pensions	4,604 44		
34. Other Expenses	1,739 66		
Total for Fire Department	$146,234 12	$450 00	
Militia:			
35. Armories	$847 49		
36. Rifle Ranges	1,088 82		
Inspection (salaries and expenses):			
37. Inspection of Buildings	3,587 58		
38. Inspection of Wires	2,040 00		
39. Sealing of Weights and Measures	4,178 64		
Forestry:			
40. Gypsy and Brown-tail Moth Extermination	5,626 64		
41. Other Insect Pest Extermination	1,316 27		
42. Care of Trees	6,756 98	341 25	
Other Protection of Life and Property:			
43.			
44.			
45.			
46.			
Total for Protection of Life and Property	$343,656 53	$791 25	$344,447 78

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
8c. Health and Sanitation			
Health:			
64. Quarantine and Contagious Disease Hospitals	$4,138 49		
65. Tuberculosis	6,155 29		
66. Miscellaneous	526 99		
67. Inspection			
Sanitation:			
68. Sewers and Sewage Disposal	445 34		
69. Sewer Construction			
70. Refuse and Garbage Disposal	15,845 56		
71. Street Cleaning			
Other Health and Sanitation:			
72.			
73.			
Total from Health and Sanitation	$27,111 67		$27,111 67
8d. Highways and Bridges			
74. Repairing	$602 06		
75. Construction			
76. Sidewalks and Curbing	1,052 90		
77. Snow Removal			
78. Sprinkling			
a. Water	262 79		
b. Other			
79. Lighting	7 54		
80. Miscellaneous	15 72		
Total from Highways and Bridges	$1,912 51		$1,912 51
8e. Charities			
81. Almshouse and City Farm			
a. Sale of Products	$3,984 89		
b. Miscellaneous	632 28		
82. Reimbursements (except for hospitals)			
a. From Individuals	545 11		
b. From Other Cities and Towns	1,708 92		
c. From the State	960 79		
83. Municipal General Hospitals			
84. Miscellaneous			
Total from Charities	$7,831 99		$7,831 99

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
1c. Health and Sanitation			
Health:			
47. General Administration	$4,593 71		
48. Quarantine and Contagious Disease Hospitals	17,097 54	$26,013 75	
49. Tuberculosis	18,718 15		
50. Vital Statistics	886 82		
51. Other Expenses	8,608 60		
52. Inspection (salaries and expenses)			
a. Inspection of School Children	3,146 53		
b. Inspection of Animals	843 23		
c. Inspection of Meat and Provisions	1,273 97		
d. Inspection of Milk and Vinegar	2,292 70		
Sanitation:			
53. Sewer Maintenance and Operation	18,539 64		
54. Metropolitan Sewer Maintenance	29,097 45		
55. Sewer Construction		50,184 88	
56. Refuse and Garbage Disposal	89,590 14	1,025 00	
57. Street Cleaning	36,883 96	72 00	
Other Health and Sanitation:			
58. Public Sanitaries	3 81		
59.			
60.			
61.			
Total for Health and Sanitation	$231,576 25	$77,295 62	$308,871 88
1d. Highways and Bridges			
62. General Administration	$7,381 55		
63. Repairing	110,997 51		
64. Construction		$130,090 65	
65. Sidewalks and Curbing	6,499 91	26,137 88	
66. Snow Removal	6,392 13		
67. Sprinkling			
a. Water	32,478 58		
b. Other	4,220 80		
68. Lighting	80,736 63		
69. Other Expenses			
a. Street Signs	229 53		
Total for Highways and Bridges	$248,936 54	$156,228 53	$405,165 07
1e. Charities			
70. General Administration	$4,421 19		
71. Almshouse and City Farm	27,937 19		
72. Outside Relief by City	14,579 09		
73. Relief given by other Cities and Towns	5,547 73		
74. Hospitals			
a. Municipal General			
b. Private or Quasi-Public			
75. Other Expenses	4,336 39		
Total for Charities	$56,821 59		$56,821 59

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Totals
8f. Soldiers' Benefits			
85. State Aid	$13,916 00		
86. Military Aid	351 00		
87. Soldiers' Burials	1,036 00		
88. Soldiers' Relief	168 00		
Total from Soldiers' Benefits	$15,471 00		$15,471 00
8g. Education			
89. Tuition and Transportation of State Wards	$846 50		
90. Other Tuition	4,935 00		
91. Sale of Text Books and Supplies	716 01		
92. Miscellaneous	4,306 97		
Total from Education	*		*
8h. Libraries			
93. Fines, Rentals and Sales	$843 05		
94. Miscellaneous			
Total from Libraries	$843 05		$843 05

*Total receipts reappropriated for Education.

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
1f. Soldiers' Benefits			
76. General Administration	$730 06		
77. State Aid	12,720 00		
78. Military Aid	553 00		
79. Soldiers' Burials	565 00		
80. Soldiers' Relief	12,826 20		
Total for Soldiers' Benefits	$27,394 26		$27,394 26
1g. Education			
81. General Expenses:			
a. Administrative Salaries	$5,312 00		
b. Other General Salaries	10,841 80		
c. Other General Expenses	2,186 03		
82. Teachers' Salaries	389,219 05		
83. Text Books and Supplies	27,773 97		
84. Tuition	383 21		
85. Transportation	327 00		
86. Support of Truants	2,287 69		
87. Janitors' Services	43,822 45		
88. Fuel and Light	22,466 40		
89. Maintenance of Buildings and Grounds	27,773 04		
90. New Buildings		$72,853 35	
91. Furniture and Furnishings	1,565 24		
92. Rent			
93. Other Expenses	1,390 96		
Total for Education	$535,348 84	$72,853 35	$608,202 19
1h. Libraries			
94. Salaries and Wages	$15,149 60		
95. Books and Periodicals	5,440 83		
96. Binding	1,958 47		
97. Art and Musical Collections	64 55		
98. Fuel and Light	1,459 29		
99. Buildings	2,117 94		
100. Other Expenses	2,408 08		
Total for Libraries	$28,598 76		$28,598 76

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets for Outlays	Total
8i. Recreation			
95. Parks and Gardens	$2,007 74		
96. Playgrounds and Gymnasia		$314 79	
97. Bathhouses and Beaches	1,310 53		
98. Celebrations and Entertainments			
Total from Recreation	$3,318 27	$314 79	$3,633 06
8j. Unclassified			
99. Receipts not recorded under previous Classifications:			
Rent of land	$208 30		
Sale of land		$9,032 50	
Postage and Stationery			
Total from Unclassified	$208 30	$9,032 50	$9,240 80
9. PUBLIC SERVICE ENTERPRISES			
100. Electric			
101. Gas			
102. Water:			
a. Income from Sale of Water	$356,241 75		
b. Miscellaneous		$18,977 41	
103. All Other:	10,400 10		
a. Markets			
b. Public Scales	12 92		
c. Docks and Wharves			
d. Ferries			
e. Herring and Alewife Fisheries			
f. Miscellaneous			
Total from Public Service Enterprises	$366,658 77	$18,977 41	$385,636 18
10. CEMETERIES			
104. Sale of Lots and Graves	$10,841 70		
105. Care of Lots and Graves	7,641 44		
106. Miscellaneous			
Total from Cemeteries	$18,483 14		$18,483 14
11. ADMINISTRATION OF INVESTED FUNDS			
107.			
108.			
109.			
Total from Administration of Invested Funds			

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
1i. Recreation			
101. General Administration:			
a. Salaries and Wages	$2,300 00		
b. Other Expenses	401 11		
102. Parks and Gardens:			
a. Salaries and Wages	10,807 30		
b. Improvements and Additions		$4,068 53	
c. Metropolitan Park Maintenance	31,176 57		
d. Other Expenses	5,537 14		
103. Playgrounds and Gymnasia:			
a. Salaries and Wages	2,835 00		
b. Improvements and Additions		48,539 03	
c. Other Expenses	2,362 04		
104. Bathhouses and Beaches:			
a. Salaries and Wages	1,230 66		
b. Improvements and Additions			
c. Other Expenses	568 87		
105. Celebrations and Entertainments:			
a. Memorial Day	1,200 00		
b. Fourth of July	782 37		
c. Labor Day	299 90		
d. Band Concerts			
e. All Other	1,500 00		
Total for Recreation	$61,000 96	$52,607 56	$113,608 52
1j. Unclassified			
106. Damages to Persons and Personal Property	$4,388 73		
107. City Clocks	147 50		
108. City Documents	1,815 27		
109. Ice for Fountains	712 65		
110. Line Fence	15 25		
a. All Other	995 69		
Total for Unclassified	$8,075 09		$8,075 09
2. PUBLIC SERVICE ENTERPRISES			
111. Electric			
112. Gas			
113. Water			
a. Maintenance and Operation	$80,254 08		
b. Construction		$48,306 60	
c.			
114. All Other:			
a. Markets			
b. Public Scales	14 09		
c. Docks and Wharves			
d. Ferries			
e. Herring and Alewife Fisheries			
f. Miscellaneous			
Total for Public Service Enterprises	$80,268 17	$48,306 60	$128,574 77
3. CEMETERIES			
115. Maintenance	$16,848 68		
116. Improvements		$999 25	
Total for Cemeteries	$16,848 68	$999 25	$17,847 93
4. ADMINISTRATION OF INVESTED FUNDS			
117. Sinking	$605 00		
118. Investment			
119. Public Trust			
Total for Administration of Invested Funds	$605 00		$605 00

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Indebtedness	Total
12. INTEREST			
110. On Deposits	$9,930 36		
111. On Deferred Taxes	12,315 26		
112. On Deferred Special Assessments	509 38		
113. On Sinking Funds			
114. On Investment Funds			
115. On Public Trust Funds:			
a. Charity			
b. School			
c. Library			
d. Cemetery	3,069 70		
e. All Other			
116. On Private Trust Funds			
117. Miscellaneous			
Total from Interest	$25,824 70		$25,824 70
13. MUNICIPAL INDEBTEDNESS			
118. Temporary Loans (including tax loans)		$235,000 00	
119. Loans for General Purposes		479,800 00	
120. Trust Funds Used			
121. Loans for Public Service Enterprises		16,500 00	
122. Loans for Cemeteries			
123. Bonds Refunded, Current Year			
124. Premiums			
125. Unpaid Warrants or Orders of Current Year		528 00	
Total from Municipal Indebtedness		$731,828 00	$731,828 00

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Indebtedness	Total
5. INTEREST			
120. On Temporary Loans (including tax loans)	$3,679 44		
121. On Loans for General Purposes	296,698 75		
122. On Trust Funds Used	1,500 00		
123. On Loans for Public Service Enterprises	137,582 75		
124. On Loans for Cemeteries	245 00		
125. Metropolitan Interest Requirements:			
a. Sewer	45,077 95		
b. Park	21,724 52		
126. State Assessment for Interest on Account of Abolition of Grade Crossings	484 00		
127. State Assessments for Interest on Account of Charles River Basin	17,950 00		
Total for Interest	$524,942 41		$524,942 41
6. MUNICIPAL INDEBTEDNESS			
128. Temporary Loans (including tax loans)		$395,000 00	
129. Bonds and Notes from Sinking Funds)			
a. General		52,000 00	
b. Public Service Enterprises		508,000 00	
c. Cemeteries		7,000 00	
130. Bonds and Notes from Revenue:			
a. General			
b. Public Service Enterprises	$12,500 00		
c. Cemeteries			
131. Metropolitan Sinking Fund Requirements:			
a. Sewer	25,520 16		
b. Park	7,672 59		
132. State Assessment for Abolition of Grade Crossings Loan Fund	6,100 00		
133. State Assessment for Charles River Basin Loan Fund	6,381 00		
a. State Assessment Smoke Nuisance	532 16		
Total for Municipal Indebtedness	$58,705 91	$962,000 00	$1,020,705 91

Schedule A-IV—Continued

RECEIPTS

OBJECTS OF RECEIPTS	Temporary Accounts	Total
14. SINKING FUNDS		
From Commissioners to meet Loans for:		
126. General Purposes	$58,000 00	
127. Public Service Enterprises	508,000 00	
128. Cemeteries		
From Boston Elevated Railway	257,500 00	
Total from Sinking Funds	$823,500 00	$823,500 00
15. AGENCY, TRUST AND INVESTMENT TRANSACTIONS		
Agency:		
129. Taxes		
a. State	$156,860 00	
b. Non-resident Bank	3,101 79	
c. County	108,787 44	
130. Liquor Licenses Collected for the State	15 25	
131. Reimbursements for Abolition of Grade Crossings		
132. All Other		
Trust:		
133. Perpetual Care Funds	2,723 25	
134. Other Permanent Public Trust Funds	10 00	
135. Income for Investments		
136. Private Trust Funds and Accounts		
a. Guarantee Deposits		
b. Protested Taxes and Assessments		
c. Tailings		
d. All Other		
Investment:		
137. Sinking Fund Securities		
138. Investment Fund Securities		
Total from Agency, Trust and Investment Transactions	$271,497 73	$271,497 73

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Temporary Accounts	Total
7. SINKING FUNDS		
To Commissioners for Debt Requirements:		
135. From Revenue	$352,754 70	
136. From Premiums on Bonds	528 00	
137. From Sale of Real Estate	11,400 00	
a. From Other Sources	21,557 31	
b. From Boston Elevated	257,500 00	
Total for Sinking Funds	$643,740 01	$643,740 01
8. AGENCY, TRUST AND INVESTMENT TRANSACTIONS		
Agency:		
138. Taxes		
a. State	$156,860 00	
b. Non-resident Bank	3,101 79	
c. County	108,787 44	
139. Liquor Licenses Remitted to State	15 25	
140. Abolition of Grade Crossings		
141. All Other		
Trust:		
142. Perpetual Care Funds	2,723 25	
143. Other Permanent Public Trust Funds	10 00	
144. Income Invested		
145. Private Trust Funds and Accounts		
a. Return of Guarantee Deposits		
b. Return of Protested Taxes and Assessments		
c. Tailings		
d. All Other		
Investment:		
146. Sinking Fund Securities		
147. Investment Fund Securities		
Total for Agency, Trust and Investment Transactions	$271,497 73	$271,497 73

Schedule A-IV—Continued

RECEIPTS

SOURCES OF RECEIPTS	Temporary Accounts	Total
16. REFUNDS		
139. Taxes	$38,563 82	
140. Licenses		
141. Special Assessments	194 58	
142. General Departments	165 37	
143. Public Service Enterprises	3,180 19	
144. Cemeteries		
145. Accrued Interest	520 53	
146. All Other		
Total Refunds	$42,624 49	$42,624 49
17. TRANSFERS		
147. Departmental:		
a. Treasury Department from Tax Lien Account	$1,633 33	
b. Treasury Department from Water Department	1,500 00	
c. Law Department from Water Department	1,000 00	
d. Municipal Buildings from Sundry Departments	1,265 06	
e. Fire Alarm Department from Sundry Departments	122 97	
f. Moth Extermination from Sundry Departments	55 62	
g. Sewers, Maintenance from Sundry Departments	26 48	
h. Street Maintenance from Sundry Departments	151 59	
i. City Home from State Aid	241 74	
j. City Home Hospital from State Aid	114 27	
k. Sealer of Weights from Sundry Departments	8 64	
l. Postage and Stationery from Sundry Departments	1,677 94	
m. Water Department from Sundry Departments	207 14	
n. Cemetery Department from Sundry Departments	229 00	
o. Webster School from School Dept.	8,000 00	
Total Transfers	$16,266 72	$16,266 72

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Temporary Accounts	Total
9. REFUNDS		
148. Taxes	$38,563 82	
149. Licenses		
150. Special Assessments	194 58	
151. General Departments	165 37	
152. Public Service Enterprises	3,180 19	
153. Cemeteries		
154. Accrued Interest	520 53	
155. All Other		
Total Refunds	$42,624 49	$42,624 49
a. School Dept. to Webster School	$8,000 00	
b. Tax Lien Account to Treasury Department	1,633 33	
c. Water Department to Treasury Department	1,500 00	
d. Water Department to Law Department	1,000 00	
e. Sundry Departments to Municipal Buildings	1,265 00	
f. Sundry Departments to Fire Alarm Department	122 97	
g. Sundry Departments to Moth Extermination	55 62	
h. Sundry Departments to Sewers Maintenance	26 48	
i. Sundry Departments to Street Maintenance	151 59	
j. State Aid to City Home	241 74	
k. State Aid to City Home Hospital	114 27	
l. Sundry Departments to Sealer of Weights	8 64	
m. Sundry Departments to Postage and Stationery	1,677 94	
n. Sundry Departments to Water Departments	207 14	
o. Sundry Department to Cemetery	229 00	
Total Transfers	$16,226 72	$16,226 72

Schedule A-IV—Concluded

RECEIPTS

SOURCES OF RECEIPTS	Cash Balances	Total
18. BALANCES		
148. General	$293,697 39	
149. Sinking Fund		
150. Investment Fund		
151. Public Trust Fund		
152. Private Trust Funds and Accounts	461 07	
Total cash on hand beginning of year	$294,158 46	$294,158 46
Grand Total Receipts and Cash on Hand		$5,034,546 87

Schedule A-IV—Continued

PAYMENTS

OBJECTS OF PAYMENTS	Cash Balances	Total
11. BALANCES		
157. General	$344,035 23	
158. Sinking Fund		
159. Investment Fund		
160. Public Trust Fund		
161. Private Trust Funds and Accounts	461 07	
Total cash on hand end of year	$344,496 30	$344,496 30
Grand total payments and cash on hand		$5,034,546 87

SCHEDULE A-V

APPROPRIATIONS, RECEIPTS AND PAYMENTS

Abatements, Taxes.

Licenses.

Departmental:

- General Government.
- Protection of Life and Property.
- Health and Sanitation.
- Highways and Bridges.
- Charities.
- Soldiers' Benefits.
- Education.
- Libraries.
- Recreation.
- Unclassified.

Public Service Enterprises:

- Water Works.

Cemeteries.

Administration of Invested Funds.

Interest.

Sinking Funds.

ABATEMENTS—TAXES.

EXPENDED.

For abatements, as per Assessors' certificates:			
Taxes of 1910:			
Real Estate	$18,485 90		
Personal	17,444 79		
Poll	582 00		
		$36,512 69	
Taxes of 1909:			
Real Estate	$ 1,474 55		
Personal	279 30		
		1,753 85	
Taxes of 1908:			
Personal	$ 291 25		
Poll	6 03		
		297 28	
Total			$38,563 82

ABATEMENTS, STREET SPRINKLING ASSESSMENTS.

EXPENDED.

For abatements, as per Assessors' certificates:		
Assessment of 1910	$182 31	
Assessment of 1909	2 92	
Total		$185 23

ABATEMENTS, MOTH ASSESSMENTS.

EXPENDED.

For abatements, as per Assessors' certificates:		
Assessment of 1910	$9 35	
Total		$9 35

LICENSES AND PERMITS.

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For amusement licenses	$465 00
Druggists' liquor licenses	61 00
Milk	210 00
Butterine	10 00
Hawkers' and pedlers'	250 00
Licenses issued by City Clerk:	
Auctioneers'	57 00
Fireworks	85 00
Intelligence offices	58 00
Junk-stores and collectors	1,320 00
Pedlers	148 50
Pawnbrokers and small loan	170 00
Wagon, carriage and drivers'	381 00
Slaughtering	3 00
Gasolene	21 00
Lord's Day (ice cream, etc.)	230 00
Private detective	20 00
Marriage	1,267 00
Merry-Go-Round	4 00
Pool and bowling alleys	100 00
Newspaper licenses:	
School Dept.	53 00
	$4,913 50

EXPENDED.

For payments to state on account of liquor licenses		$15 25	
Refunds on newspaper license badges			
School Dept. certificates	$45 75		
Police Dept. certificates	46 00		
		91 75	
Total			$107 00

GENERAL GOVERNMENT.

CITY COUNCIL EXPENSES

Appropriation			$5,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For sale of:			
Rebate of overcharge on City Document	$12 45		
Rebate of overcharge on Carriage Bill	2 00		
	$14 45		
EXPENDED.			
For salaries of:			
Clerk of Council	$500 00		
Pages	100 00		
		$600 00	
Advertising hearings, ordinances, etc.		406 25	
Books, legal documents, etc.		84 47	
Budgets and financial reports		214 50	
Calendars		224 50	
Car tickets		600 00	
City Documents:			
Advertising	$52 00		
Special binding	1,603 27		
		1,655 27	
City Government Manuals		89 00	
Engraving and mounting gavel		3 50	
Engrossing resolutions		20 00	
Gavel		1 00	
Funeral expenses:			
Carriage hire	$4 00		
Flowers	10 00		
		14 00	
Inauguration Day expenses:			
Carriage hire	18 00		
Floral decorations	50 00		
Printing	74 50		
Use of chairs	7 81		
		150 31	
Posting and serving notices		17 93	
Posting notices of civil service examinations		45 00	
Printing		292 05	
Recording Fees		2 35	
Ringing bells on holidays		33 00	
Serving summons to hearings before Board		17 35	
Stationery and record books		55 93	
Sundries		65	
Expenses of Committees for:			
Carriage and automobile hire	$332 85		
Dinners and refreshments	289 80		
		622 65	
Total			$5,149 71
Excess of expenditures over appropriation			$149 71
Transfer from Reserve Fund			149 71

General Government—Continued.

CLERK OF COMMITTEES' DEPARTMENT

Salaries.

Appropriation		$4,086 00
EXPENDED.		
For salaries of:		
Clerk of Committees	$2,400 00	
Assistant	900 00	
Stenographer	753 00	
	$4,053 00	
Total		$4,053 00
Surplus of appropriation		$33 00
Transfer to General Expenses		11 86
Balance relinquished to General Treasury		$21 14

General Expenses.

Appropriation		$285 00
EXPENDED.		
For advertising	$4 00	
Binding	10 25	
Directories	16 00	
Stationery, printing and office supplies	196 79	
Telephone service	69 82	
Total		$296 86
Excess of expenditures over appropriation		11 86
Transfer from salaries		11 86

MAYOR'S DEPARTMENT

Salaries.

Appropriation		$5,500 00
EXPENDED.		
For salaries of:		
Mayor, William F. Brooks	$3,500 00	
Clerk	1,426 02	
Stenographer	810 00	
Total		$5,736 02
Excess of expenditures over appropriation		$236 02
Transfer from General Expenses	$225 00	
Transfer from Auditors' Dept. Salaries	11 02	
Total		$236 02

General Government—Continued.

MAYOR'S DEPARTMENT

General Expenses.

Appropriation		$700 00
EXPENDED.		
For binding	$8 00	
Carriage hire, etc.	224 00	
Newspapers	11 40	
Stationery, printing and office supplies	140 21	
Telephone service	129 47	
Typewriter supplies and repairs	7 85	
Sundries	85	
Total		$521 78
Surplus of appropriation		$178 22
Transfer from Auditing Dept Salaries		46 78
		$225 00
Transfer to Salaries		225 00

AUDITING DEPARTMENT

Salaries.

Appropriation		$4,180 00
EXPENDED.		
For salaries of:		
Auditor	$2,500 00	
Clerks	1,501 19	
Total		$4,001 19
Surplus of appropriation		$178 81
Transfer to General Expense	$111 99	
Transfer to Executive Dept. Gen. Expense	46 78	
Transfer to Executive Dept. Salaries	11 02	
Total		169 79
Balance relinquished to General Treasury		$9 02

General Expenses.

Appropriation		$150 00
EXPENDED.		
For Adding Machine, Typewriter supplies and repairs	$522 89	
Binding	6 25	
Books	5 00	
Newspapers	2 50	
Printing annual report	71 90	
Stationery and office supplies	93 48	
Telephone service	59 07	
Sundries	90	
Total		$761 99

General Government—Continued.

AUDITING DEPARTMENT GENERAL EXPENSES—Continued.

Excess of expenditures over appropriation		$611 99
Transfer from Reserve Fund	$500 00	
Transfer from Salaries	111 99	
Total		611 99

TREASURER'S AND COLLECTOR'S DEPARTMENT

Salaries.

Appropriation		$11,400 00

EXPENDED.

For salaries of:		
Treasurer	$3,000 00	
Cashier	1,793 01	
Paymaster and assistants	3,332 00	
Bookkeeper	906 42	
Permanent clerks	1,683 78	
Temporary clerks	641 39	
Total		$11,356 60
Surplus of appropriatioon relinquished to general treasury		$43 40

General Expenses.

Appropriation	$7,500 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

Tax sale:	
Advertising	$677 75
Descriptions	398 65
Deeds	270 00
Posting	317 00
Recording	40 85
Releases	36 00
Fees	40 00
Certificates (Chap. 378, Acts of 1907)	82 00
Taxes—Summonses	1,725 30
Services of department in collection of water rates, etc., Water Dept.	1,500 00
	$5,087 55

General Government—Continued.

TREASURER'S AND COLLECTOR'S DEPARTMENT GENERAL EXPENSES—Concluded.

Amounts brought forward		$7,500 00
EXPENDED.		
For adding machine and repairs	$337 00	
Addressograph supplies	8 30	
Advertising tax sale	544 05	
Binding	1 50	
Bonds and coupons	85 00	
Carriage hire for paymaster	504 00	
Commission for collecting taxes	2,199 77	
Directories	14 00	
Furniture	97 25	
Newspapers	6 00	
Premiums on official bonds of treasurer and cashier	300 00	
Printing annual report	110 00	
Recording documents	42 25	
Stationery, printing and office supplies	2,534 29	
Telephone service	149 70	
Typewriter repairs and supplies	1 75	
Total		$6,934 86
Surplus of appropriation		$565 14
Transfer to Messenger Dept. Salaries	$49 00	
Transfer to Messenger Dept. Gen. Expenses	21 23	
Transfer to Postage and Stationery	33 13	
Total		103 36
Balance relinquished to General Treasury		$461 78

ASSESSORS' DEPARTMENT

Salaries.

Appropriation		$12,500 00
EXPENDED.		
For salaries of:		
Principal Assessors	$5,134 61	
Assistant Assessors	1,925 00	
Permanent clerks	2,385 00	
Temporary clerks	2,753 78	
Total		$12,198 39
Surplus of appropriation		$301 61
Transfer from Reserve Fund		500 00
		$801 61
Transfer to general expenses		146 80
Balance relinquished to general treasury		$654 81

General Government—Continued.

ASSESSORS' DEPARTMENT—Concluded.

General Expenses.

Appropriation		$1,500 00
EXPENDED.		
For advertising	$41 00	
Automobile lists	10 00	
Car tickets	45 00	
Carriage hire	50 50	
Cash expended for car fares and lunches	6 75	
Directories	19 00	
Expressage	85	
Printing poll-tax list	892 00	
Repairing binders	5 00	
Stationery, printing and office supplies	484 32	
Subscription to "Banker and Tradesman"	5 00	
Telephone service	87 38	
Total		$1,646 80
Excess of expenditure over appropriation		$146 80
Transfer from salaries		146 80

ASSESSORS' PLANS

Appropriation		$200 00
EXPENDED.		
For services of engineers and assistants, as per pay-rolls	$199 09	
Total		$199 09
Surplus of appropriation relinquished to general treasury		$0 91

CITY CLERK'S DEPARTMENT

Salaries.

Appropriation		$7,000 00
EXPENDED.		
For salaries of:		
City Clerk	$3,300 00	
Assistant City Clerk	1,600 00	
Permanent clerks	2,041 98	
Temporary clerks	135 83	
Total		$7,077 81
Excess of expenditure over appropriation		$77 81
Transfer from general expenses		100 00
Balance relinquished to general treasury		$22 19

General Government—Continued.

CITY CLERK'S DEPARTMENT—Concluded.

General Expenses.

Appropriation		$2,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.		
For certificates from record	$167 65	
Married women's certificates	4 50	
Recording cemetery deeds	6 25	
Recording dog licenses	406 80	
Recording liquor licenses	65 00	
Recording mortgages, assignments, etc.	613 27	
Recording business certificates	13 75	
Witness fees	6 40	
Junk collectors' badges	39 50	
	$1,323 12	
EXPENDED.		
For binding	$91 45	
Birth returns, sundry physicians	453 00	
Canvassing for births	396 00	
Death returns	3 50	
Directory	10 00	
Expressage	80	
Filing boxes	40 00	
Junk collectors' badges	80 00	
Newspapers	5 00	
Premium on office bond	12 00	
Recording documents	14 35	
Stationery, printing and office supplies	640 53	
Telephone service	78 89	
Typewriter repairs and supplies	92 15	
Verifying and obtaining facts for record	34 32	
Total		$1,951 99
Surplus of appropriation		$48 01
Transfer from Renovating Public Record		51 99
		$100 00
Transfer to salaries		100 00

CLASSIFIED INDEX.

Appropriation		$250 00
EXPENDED.		
For services of clerks	$122 42	
Total		$122 42
Surplus of appropriation relinquished to general treasury		$127 58

RENOVATION OF PUBLIC RECORDS

Appropriation from reserve fund	$250 00
EXPENDED.	
For binding Record	160 00
Surplus of appropriation	$90 00
Transfer to City Clerk's General Expenses	51 99
Balance relinquished to general treasury	$38 01

CITY MESSENGER'S DEPARTMENT

Salaries.

Appropriation		$1,700 00
EXPENDED.		
For salaries of:		
City Messenger	$1,400 00	
Assistant	349 00	
Total		$1,749 00
Excess of expenditure over appropriation		$49 00
Transfer from Treasury Department general expenses		49 00

General Expenses.

Appropriation		$300 00
EXPENDED.		
For car tickets	$25 00	
Desk lock repairs	75	
Directory	4 50	
Disinfectant	85	
Expressage	34 20	
Newspapers and periodicals	16 35	
Rent of postoffice box	8 00	
Stationery, printing and office supplies	121 70	
Telephone service	109 88	
Total		$321 23
Excess of expenditure over appropriation		$21 23
Transfer from Treasury Department general expenses		21 23

LAW DEPARTMENT

Salaries.

Appropriation		$4,100 00
EXPENDED.		
For salaries of:		
City Solicitors	$3,500 00	
Stenographer	598 00	
Total		$4,098 00
Surplus of appropriation transferred to General Expenses		$2 00

General Government—Continued.

LAW DEPARTMENT, GENERAL EXPENSES.

Appropriation		$700 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For legal advice and service of City Solicitor to Water Dept.	$1,000 00	

EXPENDED.

For copies of court orders, etc	3 00	
Examination of titles and entry fees	101 00	
Medical examination and reports	75 00	
Office furniture and repairs	48 00	
Office rent	249 96	
Photographic supplies, etc	21 76	
Services of stenographers	33 20	
Services as witness and lunches	7 50	
Serving notices	8 82	
Subscriptions to periodicals	5 00	
Stationery, printing and office supplies	81 64	
Telephone service	42 22	
Typewriter repairs	17 65	
Traveling expenses and express	5 25	
Total		$700 00

ELECTIONS AND REGISTRATION

Election Expenses (City Clerk)

Appropriation		$10,300 00

EXPENDED.

For services of:		
Election officers and deputies	$4,810 00	
Precinct men	358 00	
Primary officers	968 00	
	$6,136 00	
Special clerks, tabulating returns	61 50	
Clerical assistance in office	407 93	
Labor, filing away returns, etc	223 35	
Advertising	665 36	
Ballots and tally sheets	974 70	
Ballot boxes and repairs	97 18	
Barges, carriage and automobile hire	273 00	
Caucus Laws	22 50	
Electrical work	3 00	
Expressage and teaming	150 85	
Lighting at Cambridge Field Shelter	8 64	
Lunches for police and carriage men	68 65	
Mounting lists	63 50	
Amounts carried forward	$9,156 16	$10,300 00

General Government—Continued.

ELECTIONS AND REGISTRATIONS, ELECTION EXPENSES (CITY CLERK)—Concluded.

Amounts brought forward	$9,156 16	$10,300 00
Posting and distributing notices	101 44	
Preparing check lists and precinct books	88 50	
Printing	260 25	
Rent of hall for election returns	35 00	
Repairing locks, etc	9 20	
Serving notices, certificates of election, etc	16 00	
Signs and sign boards	33 35	
Stationery, stamps and supplies for booths	486 09	
Telephone service	35 85	
Ringing bells, sundry persons	22 00	
Sundries	15 82	
Total		$10,259 66
Surplus of appropriation relinquished to general treasury		$40 34

REGISTRARS OF VOTERS.

Appropriation	$4,500 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For sale waste paper	$1 34

EXPENDED.

For salaries of registrars and clerk of board	$2,100 00	
Clerical assistance	847 75	
Assistants at recounts, tellers	12 94	
Advertising	102 25	
Binding and mounting lists	29 50	
Carriage and automobile hire	45 75	
Directory	4 00	
New list boards	97 20	
Placing and removing list boards	51 30	
Preparing list boards and posting	55 85	
Printing voting lists	1,001 00	
Stationery and office supplies	127 20	
Telephone service	32 01	
Towel supply	5 40	
Total		$4,512 15
Excess of expenditure over appropriation		$12 15
Transfer from Polling Places		12 15

General Government—Continued.

ELECTIONS AND REGISTRATION

Polling Places.

Appropriation		$2,500 00
EXPENDED.		
For janitor service	$466 00	
Fuel and heating apparatus	10 45	
Lighting and lighting apparatus	69 19	
Operating elevator	5 00	
Rent of halls and use of land for booths	640 00	
Setting up and removing booths, etc.	873 84	
Teaming booths and supplies	300 00	
Sundries	8 79	
Total		$2,373 27
Surplus of appropriation		$126 73
Transfer to Municipal Buildings, General Expenses	$101 88	
Transfer to Polling Places	12 15	
		114 03
Balance relinquished to general treasury		$12 70

ENGINEERING DEPARTMENT

Salaries.

Appropriation		$9,000 00
EXPENDED.		
For salaries of:		
City Engineer	$3,000 00	
Assistant engineers, transitmen and rodmen	4,978 31	
Clerk	426 13	
Total		$8,404 44
Surplus of appropriation relinquished to general treasury		$595 56

General Government—Continued.

ENGINEERING DEPARTMENT—Concluded.

SUMMARY—EXPENDED.

For assessors' plans		$166 18	
Bridges		256 53	
Cemetery Department		67 25	
Highways		1,365 25	
Law Department		129 93	
Parks		213 65	
Sewers		922 98	
Sidewalks		125 65	
Water Works		135 80	
General Engineering:			
Accounts	$426 13		
General surveys and levels	495 62		
Electric conduits, etc	317 55		
Unclassified	781 92		
City Engineer	3,000 00		
		$5,021 22	
Total			$8,404 44

General Expenses.

Appropriation	$700 00

EXPENDED.

For apparatus, instruments and repairs	$45 85	
Binding	9 00	
Car tickets	200 00	
Directories	4 00	
Drawing materials, etc	122 08	
Engineering periodicals	10 00	
Expressage	2 42	
Marking and lettering	5 75	
Stationery and printing	149 34	
Telephone service	119 11	
Total		$667 55
Surplus of appropriation relinquished to general treasury		$32 45

General Government—Continued.

SUPERINTENDENT AND INSPECTOR OF BUILDINGS

Salaries.

Appropriation		$6,380 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.		
For refund on teaming		$7 00
EXPENDED.		
For salaries of:		
Superintendent and Inspector of Buildings (one-half of salary)	$1,000 00	
Assistant inspectors	2,379 58	
Inspector of Plumbing	1,200 00	
Clerk	792 00	
Total		$5,371 58
Excess of expenditures over appropriation		$1,008 42
Transfer to Municipal Building expenses	$900 00	
Transfer to Municipal Building salaries	61 69	
Transfer to Inspector of Buildings, general expense	11 33	
		973 02
Surplus of appropriation relinquished to general treasury		$35 40

General Expenses.

Appropriation		$950 00
EXPENDED.		
For advertising hearings	$19 00	
Books	20 90	
Car tickets	160 00	
Electrical supplies	4 00	
Express	9 40	
Furniture	42 75	
Harness and repairs	35	
Horse board	150 00	
Horseshoeing	17 50	
Laundering coat	4 20	
Line fence, Putnam Ave.	15 25	
Placing and removing band stand	26 00	
Stationery, printing and office supplies	253 19	
Telephone service	91 29	
Tower clocks, care and repair	147 50	
Total		$961 33
Excess of expenditures over appropriation		$11 33
Transfer from salaries		11 33

General Government—Continued:

CIVIL SERVICE LABOR REGISTRATION

Appropriation		$350 00
EXPENDED.		
For salary of registration clerk	$300 00	
Stationery	13 20	
Total		$313 20
Surplus of appropriation relinquished to general treasury		$36 80

BOARD OF APPEAL

Appropriation		$50 00
EXPENDED.		
For services of clerk	$15 00	
Total		$15 00
Surplus of appropriation relinquished to general treasury		$35 00

MUNICIPAL BUILDINGS

Salaries.

Appropriation			$11,800 00
EXPENDED.			
For salaries of employees:			
At City Hall:			
Janitor	$1,196 00		
Assistant janitor	858 00		
Extra janitor	13 50		
Engineer	1,274 00		
Firemen	2,062 32		
Elevator man and substitute	810 00		
Cleaners	1,252 80		
Watchmen	18 50		
		$7,485 12	
At Brattle Sq. Building:			
Janitor	$800 00		
Fireman	260 57		
Cleaner	364 00		
		1,424 57	
At Central Sq. Building:			
Janitor	$800 00		
Fireman	332 00		
Cleaner	364 00		
		1,496 00	
Amounts carried forward		$10,405 69	$11,800 00

General Government—Continued.

MUNICIPAL BUILDINGS—Continued.

Amounts brought forward		$10,405 69	$11,800 00
At Station No. 3 Building:			
Janitor	$728 00		
At Station No. 4 Building:			
Janitor	728 00		
Total		$11,861 69	
Excess of expenditure over appropriation			$61 69
Transfer from Inspector of Buildings salaries			61 69

General Expenses and Repairs.

Appropriation			$7,400 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For heating buildings for:		
Fire Department	$375 00	
Police Department	890 00	
		$1,265 00
Bill boards		30 00
Rent of Third District Court		2,000 00
Rent of land, Portland St.		208 30
Sale of old Materials		4 00
Damage to building from bursting of water main		104 00
		$3,611 30

EXPENDED.

For boiler insurance		$40 00	
Dues, Gas Consumers' Association		24 00	
Fuel		3,341 39	
Lettering F. C. Pratt Tablet		7 08	
Lighting		1,516 33	
Laundering towels		163 26	
Repairs and alterations:			
Cabinet repairs	$27 00		
Carpentry and lumber	214 27		
Clock repairs	8 00		
Elevator repairs	54 91		
Foundations, Brattle Sq. Building:			
Concrete work, etc.	651 10		
Needles	90 00		
Heating and ventilating apparatus	694 13		
Lighting apparatus and electric work	50 94		
Mason work	5 40		
Amount carried forward	$1,795 75	$5,092 06	$7,400 00

General Government—Continued.

MUNICIPAL BUILDINGS, GENERAL EXPENSES AND REPAIRS —Continued.

Amount brought forward	$1,795 75	$5,092 06	$7,400 00
Painting, glazing, etc.	472 41		
Brattle Sq. Building	164 84		
Plumbing	514 37		
Roof repairs	92 15		
Teaming rubbish, etc.	36 50		
	$3,076 02	$8,168 08	
Furniture and janitors' supplies:			
Ash cans	16 00		
Brooms, brushes, mops, dusters, etc.	81 35		
Chairs, shades, awnings, etc.	130 50		
Ice	119 20		
Matches	15 00		
Metal polish	4 35		
Oil, waste and boiler supplies	7 70		
Sand, etc.	9 50		
Soap and soap powder	31 53		
Toilet paper	28 90		
Miscellaneous supplies	17 50		
		461 53	
Total			8,629 61
Excess of expenditure over appropriation			$1,229 61
Transfers from Inspection of Building salaries		$900 00	
Transfers from Polling Places		101 88	
Transfer from Repairs Third District Court room		227 73	
			1,229 61

FIREPROOF VAULTS, CITY HALL.

Appropriation			$8,000 00
EXPENDED.			
For advertising		$14 25	
Express		1 25	
Guides, etc.		2 40	
Vaults		4,746 00	
Total			4,763 90
Balance unexpended			$3,236 10

General Government—Concluded.

MUNICIPAL BUILDINGS, GENERAL EXPENSES AND REPAIRS—Concluded.

REPAIRS TO THIRD DISTRICT COURT ROOM.

Appropriation		$500 00
EXPENDED.		
For carpentry	$18 47	
Hoisting vault door	4 20	
Sketches for alterations	5 00	
Vault front	80 00	
Vault	132 15	
Wiring for light	32 45	
Total		$272 27
Surplus of appropriation		$227 73
Transfer to municipal buildings, general expenses		227 73

PROTECTION OF LIFE AND PROPERTY.

POLICE DEPARTMENT

Salaries.

Appropriation			$166,500 00
EXPENDED.			
For salaries of:			
Chief of Police	$2,500 00		
Chief inspector	1,400 00		
Captains	4,200 00		
Lieutenants	8,125 00		
Inspectors	2,600 00		
Sergeants	9,302 75		
Patrolmen	103,865 50		
Reserve officers	16,951 37		
Drivers	6,462 50		
Matrons	954 00		
		$156,361 12	
Pensions		7,358 50	
Sick leave		1,344 63	
Allowance by Board of Aldermen for injuries		81 00	
Total			$165,145 25
Surplus of appropriation relinquished to general treasury			$1,354 75

Protection of Life and Property—Continued.

POLICE DEPARTMENT—Continued.

General Expenses.

Appropriation			$6,300 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For fines:			
Third District Court	$3,176 09		
House of Correction	610 00		
		$3,786 09	
For Cloth for uniforms		763 07	
Collars		8 50	
Sale of unclaimed property		30 68	
		$4,588 34	

EXPENDED.

For general administration:			
Car tickets	$175 00		
Carriage and automobile hire	7 00		
Directories	4 00		
Newspapers and periodicals	20 50		
Photographs and photographic supplies	36 00		
Stationery, printing and office supplies	446 43		
Telegrams	5 25		
Telephone service	408 07		
Traveling expenses of officers	33 65		
Traveling expenses to convention	75 70		
		$1,211 60	
Expenses of station houses:			
Advertising	$25 00		
Atomizers	1 25		
Cleaning stations	312 00		
Disinfectant and insecticide	40 06		
Expressage	5 80		
Food for prisoners	45 82		
Furniture and furnishings	125 12		
Heating buildings, Municipal Building, account	890 00		
Ice	51 19		
Janitors' supplies and sundries	83 42		
Laundry work and towel supply	51 11		
Medicines, bandages, etc.	18 50		
Sponges, chamois, etc.	14 00		
Lighting	931 53		
Oil, etc.	22 53		
		2,617 33	
Amounts carried forward		$3,828 93	$6,300 00

Protection of Life and Property—Continued.

POLICE DEPARTMENT, GENERAL EXPENSES—Concluded.

Amounts brought forward		$3,828 93	$6,300 00
For equipment and repairs:			
Bicycle repairs	$22 00		
Damage to clothing	3 50		
Harness and repairs, and horse clothing	68 10		
Lanterns	4 95		
Repairs to straight jacket.....	2 00		
Wagon and ambulance repairs.....	143 40		
Officers' equipment:			
Badges	32 30		
Belts	33 00		
Cloth and Clothing	1,059 50		
Collars	16 80		
Clubs	9 00		
Firearms	108 00		
Numbers, buttons and trimmings	131 69		
		$1,634 24	
Horses and care of same:			
Board and professional attendance	$6 00		
Hay, grain and straw.....	585 95		
Shoeing and clipping.....	180 25		
		$772 20	
Repairs on buildings:			
Carpentry	$46 64		
Electrical work and supplies....	16 23		
		$62 87	
Total			$6,298 24
Surplus of appropriation relinquished to general treasury.....			$1 76

NIGHT WATCHMAN AT HIGH SCHOOL AND LIBRARY BUILDINGS

Appropriation			$640 00
EXPENDED.			
For services of watchman		$537 50	
Total			$537 50
Surplus of appropriation			$102 50
Transfer to Electrical Department, general expenses			41 30
Balance relinquished to general treasury.....			$61 20

Protection of Life and Property—Continued.

FIRE DEPARTMENT

Salaries.

Appropriation			$111,000 00
EXPENDED.			
For salaries of:			
Chief Engineer	$2,000 00		
Assistant chief engineer	1,500 00		
Permanent men	89,148 22		
Call men	12,037 31		
		$104,685 53	
Pensions		4,604 44	
Total			$109,289 97
Surplus of appropriation			$1,710 03
Transferred to general expenses			1,600 00
Balance relinquished to general treasury			$110 03

General Expenses.

Appropriation			$20,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For old material	$2 40		
Refund on salaries	23 01		
		$25 41	
EXPENDED.			
For general administration:			
Magazines	$5 00		
Stationery, printing and office supplies	106 43		
Telephone service	70 28		
		$181 71	
Expenses of fire houses:			
Brooms, brushes, dusters, etc.	$364 10		
Disinfectant and insecticide	58 95		
Dues, Gas Consumers' Ass'n	9 00		
Express	35 08		
Furniture, furnishings and bedding	274 86		
Ice	55 25		
Laundry work	285 26		
Oil tank	1 04		
Polish	45 90		
Soap and powder	15 10		
Water cooler	3 75		
Sundries	36 48		
		$1,184 77	
Amounts carried forward		$1,366 48	$20,000 00

Protection of Life and Property—Continued.

FIRE DEPARTMENT, GENERAL EXPENSES—Concluded.

Amounts brought forward		$1,366 48	$20,000 00
For fuel and light:			
Coal and wood	$2,221 90		
Heating buildings, Municipal Building Account	375 00		
Electric lighting	379 96		
Gas lighting	505 24		
Oil	84 05		
Shavings	54 00		
Torches	25 00		
		$3,645 15	
Equipment and repairs:			
Axes	$8 35		
Chemical supplies	79 84		
Engines, wagons, trucks, etc.	4,432 35		
Extinguishers	3 30		
Harness and horse clothing	363 30		
Hose and fittings	481 23		
Insignia	65 75		
Tools and miscellaneous supplies	8 50		
Lanterns	14 20		
		$5,456 82	
Horses and care of same:			
Hay, grain and straw	$6,425 29		
Horses	2,403 00		
Horse brushes, curry combs, etc.	96 42		
Horse hire	30 00		
Shoeing and clipping	1,494 03		
		$10,448 74	
Repairs to buildings:			
Boiler inspection	$21 00		
Carpentry and lumber	327 88		
Lighting apparatus	143 77		
Mason work	43 62		
Plumbing	73 93		
Supplies for repairs	87 64		
		$697 84	
Total			$21,615 03
Excess of expenditure over appropriation			$1,615 03
Transfer from salaries			1,600 00
Transfer from Dahill Hoist			15 03

Protection of Life and Property—Continued

REPAIRS ON ENGINE NO. 7.

Appropriation (from Reserve Fund)		$1,600 00
EXPENDED.		
For repairs on boiler	$1,600 00	
Total		$1,600 00

FIRE ALARM AND POLICE TELEGRAPH AND INSPECTION OF WIRES

Salaries.

Appropriation		$10,000 00
EXPENDED.		
For salaries of:		
Inspector of Wires	$1,000 00	
Assistant inspector	1,040 00	
Foreman of repair gang	1,092 00	
Instrument man	1,196 00	
Lineman	936 00	
Trouble-men	1,872 00	
Groundman	832 00	
Battery-man	780 00	
Operators	1,638 00	
Clerk	312 00	
Total		$10,698 00
Excess of expenditure over appropriation		$698 00
Transfer from Reserve Fund		698 00

General Expenses.

Appropriation		$3,500 00
DEPARTMENT RECEIPTS.		
For work on batteries, etc., for other departments	$122 97	
Changing wires for Boston Elev. Railway Co.	363 43	
Damage to furniture and equipment by bursting of water main	205 00	
		$691 40
Amount carried forward		$3,500 00

Protection of Life and Property—Continued.

FIRE ALARM AND POLICE TELEGRAPH AND INSPECTION OF WIRES, GENERAL EXPENSES—Concluded.

Amount brought forward			$3,500 00
EXPENDED.			
For batteries and battery supplies		$357 79	
Car tickets		170 00	
Central station expenses:			
Ice	$5 94		
Lighting	48 12		
Laundry	9 92		
Soap, matches, etc	5 80		
Towels	4 20		
Typewriter	50 05		
		$124 03	
Electrical supplies		$108 46	
Expenses to convention		93 50	
Expressage and freight		35 85	
Fire alarm boxes and repairs to apparatus		41 00	
Hardware and tools		113 74	
Harness repairs		9 30	
Horse board		668 00	
Horseshoeing, clipping, etc		57 75	
Register ribbon, paper and rolls		92 29	
Stationery, printing and office supplies		77 73	
Steam for whistle		100 00	
Telephone service		142 08	
Wagon repairs		147 44	
Whistle striker and motor repairs		181 67	
Wire and line materials		1,020 67	
Total			$3,541 30
Excess of expenditure over appropriation			$41 30
Transfer from Night Watchman			41 30

DAHILL HOIST.

Appropriation			$1,700 00
EXPENDED.			
For pneumatic hoist		$1,650 00	
Setting up, etc		24 80	
Total			$1,674 80
Surplus of appropriation			$25 20
Transfer to Fire Department expenses			15 03
Relinquished to general treasury			$10 17

Protection of Life and Property—Continued.

FIRE ALARM SIGNAL BOX

Appropriation from Reserve Fund		$450 00
For new signal box	$450 00	
Total		$450 00

MILITIA—USE OF RIFLE RANGE AND TRANSPORTATION

Appropriation			$950 00
EXPENDED.			
By Headquarters, Eighth Regiment:			
For use of rifle range		$31 02	
By Company A, Eighth Regiment:			
For use of rifle range	122 78		
Transportation	102 14		
		224 92	
By Company C, Eighth Regiment:			
For use of rifle range	$144 38		
Transportation	25 00		
		169 38	
By Company E, Eighth Regiment:			
For use of rifle range	$107 50		
Transportation	100 00		
		207 50	
By Company 6, Corps Coast Artillery:			
For use of rifle range	$148 00		
Transportation	77 00		
		225 00	
By Troop C, M. V. M.:			
For use of range	$178 38		
Transportation	52 62		
		231 00	
Total			$1,088 82
Excess of expenditure over appropriation			$138 82
Additional appropriation (Troop C)		$231 00	
Additional appropriation (Co. A, 8th)		27 69	
Total			$258 69
Balance relinquished to general treasury			$119 87

Protection of Life and Property—Continued.

ARMORY TROOP C.

Appropriation from Reserve Fund	$1,000 00

EXPENDED.

For repairs	$63 92	
Furniture	45 00	
Lighting	3 57	
Rent	162 00	
Steel lockers	561 00	
Teaming	12 00	
Total		$847 49
Surplus of appropriation relinquished to general treasury		$152 51

SEALER OF WEIGHTS AND MEASURES

Salaries.

Appropriation	$3,000 00

EXPENDED.

For salaries of:		
Sealer of Weights and Measures 1910-11	$1,035 48	
Sealer of Weights and Measures 1909-10	800 00	
Deputy	1,645 24	
Assistant	336 00	
		$3,816 72
Excess of expenditure over appropriation		$816 72
Transfer from Reserve Fund	$800 00	
Transfer from general expenses	16 72	
		816 72

General Expenses.

Appropriation	$700 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For fees for sealing	$695 59	
Weighing fees at public scales	12 92	
Damage to furniture and equipment by bursting of water-main	265 00	
		$973 51
Amounts carried forward		$700 00

Protection of Life and Property—Continued.

SEALER OF WEIGHTS AND MEASURES, GENERAL EXPENSES—Continued.

Amounts brought forward			$700 00
EXPENDED.			
For advertising		$10 00	
Acid		16 00	
Car tickets		50 00	
Equipment		68 67	
Harness, wagon repairs, etc.		86 42	
Horseshoeing and clipping		23 52	
Office expenses:			
Stationery and printing	$95 50		
Telephone service	20 45		
		115 95	
Repairs on city scales		14 09	
Total			$384 65
Surplus of appropriation			$315 35
Transfer to Street Maintenance		$216 00	
Transfer to General Expenses		16 72	
			$232 72
Balance relinquished to general treasury			$82 63

MOTH AND BEETLE EXTERMINATION

Appropriation			$6,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For cleaning and spraying trees, etc.:			
Sundry Departments	$55 62		
Sundry persons	72 69		
	$128 31		
EXPENDED.			
For labor, as per pay roll		$5,205 74	
Clerical services		109 59	
Arsenate of lead		252 00	
Creosote		27 18	
Horse shoeing		7 50	
New Church spraying machine		900 00	
Notifications to property-owners		15 00	
Printing, stationery and supplies		128 59	
Sprayer repairs and supplies		86 80	
Tools and miscellaneous supplies		47 88	
Teaming		218 25	
Total			$6,998 53
Excess of expenditure over appropriation			$998 53
Transfer from Reserve Fund			1,000 00
Balance relinquished to general treasury			$1 47

Protection of Life and Property—Concluded.

SUMMARY—MOTH AND BEETLE EXTERMINATION

Moth Extermination:		
Pay-rolls	$4,648 08	
Other expenses	1,034 18	
		$5,682 26
Elm Beetle Extermination:		
Pay-rolls	$866 27	
Other expenses	450 00	
		1,316 27
Total		$6,998 53

SHADE TREES

Appropriation		$4,000 00
EXPENDED.		
For labor, as per pay-rolls	$3,381 78	
Damage by falling trees	36 84	
Irrigation	41 10	
Loam	2 93	
Medical attendance	11 00	
Old hose	1 50	
Teaming, as per pay-rolls	186 00	
Tools and miscellaneous supplies	70 32	
Trees	341 25	
Wagon repairs, labor as per pay-rolls	23 50	
Sundries	3 75	
Total		4,099 97
Excess of expenditure over appropriation		99 97
Transfer from Maintenance General		100 00
Balance relinquished to general treasury		$0 03

REMOVAL OF DEAD TREES AND CARE OF DYING

Appropriation		$3,000 00
EXPENDED.		
For labor, as per pay-roll	$1,792 75	
Advertising	8 00	
Contract for removing fifty trees	1,030 00	
Harness repairs	2 30	
Teaming	147 00	
Tools and repairs	18 21	
Total		$2,998 26
Surplus of appropriation relinquished		$1 74

HEALTH AND SANITATION.

BOARD OF HEALTH EXPENSES

Salaries.

Appropriation		$13,500 00
EXPENDED.		
For salaries of:		
Medical inspector	$1,500 00	
Bacteriologist	1,080 00	
Sanitary inspectors	3,000 00	
Inspector of Provisions	1,273 97	
Driver	897 46	
Social worker	792 50	
School nurse	900 00	
Asst. school nurse	200 00	
School inspectors	2,046 53	
Clerk	1,200 00	
Secretary	833 74	
Total		13,724 20
Excess of expenditure over appropriation		$224 20
Transfer from Reserve Fund		225 00
Balance relinquished to general treasury		$0 80

General Expenses and Hospitals.

Appropriation			$40,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For board at tuberculosis camp:			
Sundry persons	$1,820 73		
Other cities and towns	1,972 83		
Com. of Mass.	1,750 29		
		$5,543 85	
Board at other tuberculosis hospitals:			
Other cities and towns		611 44	
Board at Diphtheria Hospital:			
Sundry persons	$299 64		
Other cities and towns	1,207 27		
Com. of Mass.	240 07		
		1,746 98	
Board at other institutions:			
Sundry persons	$267 28		
Other cities and towns	1,101 36		
Com. of Mass.	1,022 87		
		2,391 51	
Refund of salary		5 13	
		$10,298 91	
Amounts carried forward			$40,000 00

Health and Sanitation—Continued.

BOARD OF HEALTH EXPENSES, SALARIES—Continued.

Amount brought forward			$40,000 00
EXPENDED.			
For general expenses:			
Automobile supplies		$16 20	
Burials (Tuberculosis)		2 70	
Burning dead animals		88 00	
Car tickets		600 00	
Care of tuberculosis patients:			
By other cities	$254 04		
By Commonwealth	707 32		
At private institutions	737 74		
		1,699 10	
Care of other contagious diseases:			
By other cities	2,699.87		
At private institutions	7,036 19		
		9,736 06	
Carriage and automobile hire		66 50	
Cash expended, investigating cases		3 02	
Cleaning trees		5 00	
Services as inspector		15 00	
Directories		6 50	
Disinfecting apparatus and supplies		352 75	
Expressage		6 55	
Furniture and furnishings		87 45	
Harness, wagon and ambulance repairs		8 35	
Horse board and storage of ambulance		360 00	
Horse-shoeing, etc.		56 25	
Ice		25 15	
Laboratory supplies		172 56	
Repairs to public sanitaries		3 81	
Serving notices		1 24	
Services of consulting physician		15 00	
Stationery, printing and office supplies		662 87	
Telephone service		143 52	
Typewriter		87 12	
Use of horse		33 00	
Sundries		8 50	
Total for general expenses			$14,262 20
Diphtheria Hospital.			
Salaries of:			
Physician	$1,200 00		
Matron	752 00		
Nurses	1,439 10		
House-man	742 00		
Cook	310 29		
House-servant	265 00		
Laundress	318 00		
		$5,026 39	
Amounts carried forward		$5,026 39	$14,262 20 $40,000 00

Health and Sanitation—Continued.

BOARD OF HEALTH EXPENSES, GENERAL EXPENSES AND HOSPITALS—Continued.

Amounts brought forward	$5,026 39	$14,262 20	$40,000 00
Cleaning	40 02		
Clothing	9 39		
Crockery and cooking utensils	7 22		
Fuel and light	291 73		
Furniture and furnishings	50 74		
Ice	50 50		
Manure	12 50		
Medical and surgical apparatus	203 64		
Repairs to building	32 00		
Seeds	68		
Soap and laundry supplies	15 00		
Stationery and printing	7 59		
Subsistence supplies	1,551 50		
Telephone service	62 58		
		7,361 48	

Tuberculosis Camp.

Salaries of:

Physician	$1,000 00		
Matrons	800 00		
Nurses	2,912 96		
Night attendants	154 29		
Care-taker	636 00		
Cooks	711 28		
House-servants	318 00		
Cleaners	386 70		
Laundresses	352 60		
	$7,271 83		
Farm labor	10 00		
Burial	5 00		
Clothing and Dry Goods	48 93		
Crockery and household furnishings	101 08		
Disinfectant	2 50		
Expressage	4 93		
Fees, Employment Agency	3 70		
Fuel	846 36		
Furniture and repairs	551 68		
Ice	138 48		
Kerosene	1 50		
Lighting	287 75		
Medical and surgical supplies	323 97		
Paper napkins, bags, etc.	128 55		
Plants, seeds and fertilizer	10 55		
Poultry and feed	26 45		
Repairing ice tank	7 54		
Repairs and alterations	285 74		
Amounts carried forward	$10,056 54	$21,623 68	$40,000 00

Health and Sanitation—Continued.

BOARD OF HEALTH EXPENSES, GENERAL EXPENSES AND HOSPITALS—Concluded.

Amounts brought forward	$10,056 64	$21,623 68	$40,000 00
Soap and laundry supplies	56 28		
Stationery and office supplies	27 75		
Subsistence supplies	6,409 78		
Telephone service	71 46		
Toilet paper	27 60		
Towels	10 05		
Water, Town of Belmont	356 89		
Total for Tuberculosis Camp		17,016 35	
Total for general expenses and hospitals			38,640 03
Surplus of appropriation relinquished to general treasury			$1,359 97

CONTAGIOUS HOSPITAL

Appropriation brought from 1910		$95,000 00
Additional appropriation		25,000 00
		$120,000 00
EXPENDED.		
For land purchased from Margaret M. E. O'Brien....	$26,000 00	
Advertising	13 75	
Total		26,013 75
Balance of appropriation		$93,986 25

INSPECTION OF ANIMALS

Appropriation		$800 00
EXPENDED.		
For salary of inspector of animals	$700 00	
Medicines and drugs	143 23	
Total		843 23
Excess of expenditure over appropriation		$43 23
Transfer from Reserve Fund		50 00
Balance relinquished to general treasury		$6 77

Health and Sanitation—Continued.

INSPECTION OF MILK AND VINEGAR

General Expenses.

Appropriation		$2,300 00
EXPENDED.		
For salaries of:		
Inspector of milk and vinegar ...	$1,200 00	
Collector of samples	847 50	
Apparatus and laboratory supplies	101 10	
Car tickets	45 00	
Clerical assistance	13 88	
Collector's bag	10 00	
Stationery and printing	72 22	
Use of horse	3 00	
Total		2,292 70
Surplus of appropriation relinquished to general treasury		$7 30

MODIFIED MILK

Appropriation		$1,200 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.		
For sale of modified milk	$526 99	
EXPENDED.		
For services, modifying milk	$186 00	
Services of nurses at distributing stations	200 60	
Services, washing and filling bottles	79 88	
Apparatus, repairs and supplies ..	33 26	
Car fares	4 20	
Delivering milk	130 00	
Expressage	30	
Milk, cream, sugar of milk and distilled water	516 51	
Printing and stationery	20 46	
Total		1,171 21
Surplus of appropriation relinquished to general treasury		$28 79

Health and Sanitation—Continued.

SEWER DEPARTMENT

Construction General

Appropriation brought from 1910	$1,137 48
Additional appropriations	25,000 00
	$26,137 48

EXPENDED.

For labor, as per pay-roll	$10,317 06	
Engineering as per pay-roll	283 50	
Advertising	10 40	
Blacksmithing	80 15	
Bricks	395 84	
Catch-basin traps	131 25	
Cement	1,113 90	
Frames, grates and covers	414 42	
Gravel, sand and filling	1,019 80	
Lighting	25 09	
Lumber and mill-work	1,015 52	
Machine oil	7 58	
Oatmeal	3 12	
Packing	22 16	
Pipe and fittings	929 17	
Rubber boots	41 52	
Steel rods, etc.	296 74	
Teaming	281 75	
Tools and repairs, and miscellaneous supplies	204 63	
Total		$16,593 60
Balance of appropriation		$9,543 88

SUMMARY—EXPENDED.

For new catch-basins:			
Labor	$461 08		
Teaming	3 00		
Supplies	709 29		
		$1,173 37	
Boylston St. Sewer:			
Labor	$5,321 83		
Teaming	262 25		
Supplies	2,285 81		
		7,869 89	
Amount carried forward			$9,043 26

Health and Sanitation—Continued.

SEWER DEPARTMENT, CONSTRUCTION GENERAL—Concluded.

Amount brought forward			$9,043 26
Edmunds St. Sewer:			
Labor	$432 57		
Teaming	14 25		
Supplies	280 99		
		727 81	
Fresh Pond Parkway Sewer:			
Labor	$376 66		
Teaming	2 25		
Supplies	90 38		
		469 29	
Landsdowne St. Sewer:			
Labor	$3,244 92		
Supplies	1,512 53		
		4,757 45	
Mass. Ave. at Trowbridge St. Sewer:			
Labor	$19 45		
Supplies	89 78		
		109 23	
Mt. Auburn St. Sewer:			
Labor	$444 03		
Supplies	226 76		
		670 79	
Rindgefield St. Sewer:			
Labor	$164 82		
Supplies	208 84		
		373 66	
Yerxa Road Sewer:			
Labor	$135 20		
Supplies	57 54		
		192 74	
General Expenses:			
Supplies		249 37	
Total		$16,593 60	

SEWER CONSTRUCTION GENERAL, SUBWAY.

Appropriation brought from 1910		$8,000 00
EXPENDED.		
For Sewer Construction, Main St.	$4,386 67	
Total		$4,386 67
Balance of appropriation		$3,613 33

Health and Sanitation—Continued.

SEWER DEPARTMENT—Continued.

Separate System of Drainage.

Appropriation brought from 1910	$5,018 75
Additional appropriations	20,000 00
	$25 018 75

EXPENDED.

For labor, as per pay-roll	$18,743 62	
Engineering, as per pay-roll	552 50	
Boots	44 40	
Bricks	435 10	
Cement	518 89	
Frames, grates and covers	227 60	
Gravel, crushed stone and sand	484 81	
Lumber and mill-work	1,025 33	
Oatmeal	3 13	
Oil	36 59	
Pipe and fittings	2,173 39	
Steel rods	12 21	
Teaming	346 00	
Tools, repairs and miscellaneous supplies	162 94	
Use of roller	10 00	
Total		24,776 51
Balance of appropriation		$242 24

SUMMARY—EXPENDED.

Cogswell Avenue District:		
Labor	$14,521 41	
Teaming	230 50	
Expenses	3,689 69	
		$18,441 60
Broadway District:		
Labor	$4,774 71	
Teaming	115 50	
Expenses	1,444 70	
		6,334 91
Total		$24,776 51

Health and Sanitation—Continued.

SEWER DEPARTMENT—Continued.

Construction, Gate Chambers.

Appropriation, brought from 1910		$161 73
EXPENDED.		
For labor, as per pay-roll	$153 75	
Lumber	3 70	
Pitch	1 20	
Total		158 65
Balance of appropriation		$3 08

SEWER CONSTRUCTION SEPARATE SYSTEM, SUBWAY.

Appropriation from 1910		$7,000 00
EXPENDED.		
For sewer construction, Main street	$3,346 47	
Total		3,346 47
Balance of appropriation		$3,653 53

Sewer Maintenance.

Appropriation		$19,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.		
For pipe, cement, etc., furnished to other depts.	$26 48	
Cleaning sewers	267 63	
Old leather hose	9 50	
Fertilizer	65 00	
Sand	13 00	
Repairing catch-basin	42 10	
Old sanitary carts	15 00	
Old iron	33 11	
	$471 82	
EXPENDED.		
For salaries of:		
Superintendent of sewers	$2,000 00	
Clerk	426 13	
	$2,426 13	
Labor, as per pay-roll	8,328 63	
Engineering, as per pay-roll	61 50	
Advertising	10 40	
Blacksmithing and iron work	199 70	
Bricks	26 70	
Carriage repairs	197 65	
Cart repairs	38 00	
Car tickets	60 00	
Catch basin traps	18 75	
Cement	197 88	
Cleaning catch-basins	3,601 50	
Cleaning trees in yard, Park Dept.	2 25	
Amounts carried forward	$15,169 09	$19,000 00

Health and Sanitation—Continued.

SEWER DEPARTMENT, SEWERS MAINTENANCE—Continued.

Amounts brought forward	$15,169 09	$19,000 00
Express	1 15	
Frames, grates, covers, etc.	230 89	
Fuel	42 02	
Gravel and sand	117 51	
Harness and repairs, and horse clothing	23 10	
Hay, grain and straw	586 66	
Horse-shoeing and clipping	150 00	
Hose and repairs	440 36	
Lighting, electric	16 96	
Lighting, oil	10 57	
Lumber	350 09	
Painting	269 01	
Pipe and fittings	90 07	
Pump	40 00	
Repairing drains, etc.	11 81	
Repairs to building, fence and yard	286 00	
Rubber boots and clothing	159 25	
Stationery, printing and office supplies	27 41	
Stove and repairs	30 85	
Telephone service	33 49	
Tools and miscellaneous supplies.	204 26	
Trench, Massachusetts avenue ...	275 57	
Total		$18,566 12
Surplus of appropriation relinquished to general treasury		$433 88

SUMMARY—EXPENDED.

For repairing catch-basins:		
Labor	$589 09	
Supplies	336 43	
		$955 52
Cleaning catch-basins:		
Labor	$2,386 83	
Teaming	3,601 50	
Supplies and repairs	205 11	
		6,193 44
Cleaning and repairing gates:		
Labor	873 95	
Supplies	258 09	
		1,132 04
Cleaning sumps:		
Labor	$206 54	
		206 54
Amount brought forward.....		$8,487 54

Health and Sanitation—Continued.

SEWER DEPARTMENT, SEWERS MAINTENANCE—Concluded.

Amount brought forward		$8,487 54	
Cleaning and flushing sewers:			
Labor	$1,731 36		
Supplies	450 87		
		2,182 23	
Manhole repairs:			
Labor	$101 14		
Supplies	6 67		
		107 81	
Office expenses:			
Salary of clerk	$426 13		
Supplies	27 41		
		453 54	
Sewer repairs:			
Labor	$1,215 50		
Supplies	838 40		
		2,053 90	
Stable account:			
Labor	$797 00		
Repairs and supplies	894 58		
		1,691 58	
General expenses:			
Salary of superintendent	$2,000 00		
Labor	488 72		
Supplies	1,100 80		
		3,589 52	
Total			$18,566 12

COLLECTION OF ASHES

Appropriation			$44,600 00
EXPENDED.			
For salary of foreman		$1,200 00	
Labor, as per pay-roll		36,893 03	
Bicycle repairs		4 75	
Cart covers		105 00	
Dumping privileges		617 33	
Hardware tools, etc.		9 58	
Harness and repairs		240 59	
Hay, grain and straw		6,102 54	
Horse-shoeing and stock, and clipping		79 10	
Amounts carried forward		$45,251 92	$44,600 00

Health and Sanitation—Continued.

COLLECTION OF ASHES— Concluded.

Amounts brought forward	$45,251 92	$44,600 00
New equipment	830 00	
Painters supplies	182 20	
Renewals and repairs, carts	361 26	
Teaming, as per pay-roll	459 00	
Sundries	14 90	
Total		47,099 28
Excess of expenditure over appropriation		$2,499 28
Transfer from Reserve Fund		2,500 00
Balance relinquished to general treasury		$0 72

INCINERATOR—MAINTENANCE

Appropriation		$4,300 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.		
For sale of junk and bottles	$87 10	
EXPENDED.		
For labor, as per pay-roll	$3,942 30	
Additions and repairs	168 94	
Furnace, engine and boiler supplies	124 69	
Ice	9 10	
Inspection of boilers	5 00	
Printing	4 00	
Tools and miscellaneous supplies	45 83	
Total		$4,299 86
Surplus of appropriation relinquished to general treasury		$0 14

HOUSE OFFAL

Labor.

Appropriation		$30,000 00
EXPENDED.		
For labor, as per pay-roll	$28,978 00	
Total		28,978 00
Surplus of appropriation		$1,022 00
Transfer to City Home, General Expenses	$300 00	
Transfer to Offal, General Expenses	650 00	
		950 00
Balance relinquished to general treasury		$72 00

Health and Sanitation—Continued.

HOUSE OFFAL—Concluded.

General Expenses.

Appropriation			$8,500 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For sale of offal	$15,758 46		
EXPENDED.			
For Cement		$52 65	
Concrete wash stand		100 00	
Crushed stone		20 44	
Harness, blankets, etc.		476 58	
Hay, grain and straw		5,304 93	
Horses		1,360 00	
Horse-shoeing		756 64	
Lighting stable		32 48	
Medicine		7 40	
Paint		161 06	
Stove		12 00	
Stable repairs:			
Carpentry	$210 20		
Lumber	255 00		
Plumbing	3 91		
Supplies for repairs	53 30		
		522 41	
Stable supplies		85 46	
Tools		29 20	
New wagons		195 00	
Wagon repairs		1,033 75	
Total			10,150 00
Excess of expenditure over appropriation			$1,650 00
Transfer from Reserve Fund		$1,000 00	
Transfer from Labor		650 00	
			1,650 00

STREET CLEANING (INCLUDING SNOW REMOVAL)

Appropriation			$42,000 00
EXPENDED.			
For street cleaning:			
Labor:			
Section-men	$16,339 50		
General cleaning	13,468 75		
		29,808 25	
Harness repairs		48 55	
Hay, grain and straw		1,836 12	
Machine sweeper repairs		10 20	
Refilling machine sweeper brooms		131 50	
Salt		4 50	
Teaming, as per pay-roll		4,683 76	
Tools and miscellaneous supplies		361 08	
Amounts carried forward		$36,883 96	$42,000 00

Health and Sanitation—Concluded.

STREET CLEANING (INCLUDING SNOW REMOVAL)—Concluded.

Amount brought forward		$36,883 96	$42,000 00
Waste barrels	$72 00		
		72 00	
For snow removal:			
Labor:			
Section-men	$2,067 00		
Shoveling walks around schools	530 50		
General	3,050 09		
		5,647 59	
Express		1 50	
Gravel		31 35	
Road machine repairs		2 00	
Salt		4 50	
Stable expense		269 64	
Teaming, as per pay-roll		201 00	
Tools and repairs		234 55	
Total for street cleaning		$36,955 96	
Total for snow removal		6,392 13	
Total			$43,348 09
Excess of expenditure over appropriation			$1,348 09
Transfer from Boston Bridge Gen. Exp.		1,000 00	
Transfer from Repairs on Sixth St. Bridge		348 09	
			$1,348 09

HIGHWAYS AND BRIDGES.

SALARIES OF SUPERINTENDENT OF STREETS AND CLERKS

Appropriation			$6,820 00
EXPENDED.			
For salaries of:			
Superintendent of streets		$2,500 00	
Office clerks		$2,708 32	
Yard clerks		1,611 00	
Total			6,819 32
Balance relinquished to general treasury			$0 68

Highways and Bridges—Continued.

STREET MAINTENANCE

Appropriation	$69,500 00
Transfer from Park, Maintenance General for board of two horses	432 00
Transfer from Sealer Wts. and Measures General Expen. for board of one horse	216 00
	$70,148 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For labor and materials	$259 21
Bricks	27 74
Gravel, sand, etc.	13 54
Horse board	54 00
Shoeing	54 82
Old iron	34 64
Old carts	8 00
Use of roller	100 00
Shoes	8 20
Rebate on cement bags	135 00
Rent for bill board space	30 00
Permit fees	28 50
	$753 65

EXPENDED.

For salaries of district foremen	$2,808 00		
Stablemen	9,231 35		
Blacksmiths	4,480 61		
Carpenters	2,715 38		
Harness-maker	703 49		
Painters	3,347 77		
Labor, as per pay-roll	21,528 88		
		$44,815 48	
Office expenses and telephone service:			
Advertising	$29 50		
Binding	6 00		
Directory	4 00		
Stationery, printing and supplies	237 61		
Telephone service	280 27		
Typewriter repairs	4 75		
		562 13	
Bicycle repairs		10 70	
Carriage and wagon repairs		460 15	
Cement		241 00	
Fuel and freight		1,713 95	
Gravel		245 62	
Harness and repairs and horse clothing		451 13	
Hay, grain and straw		3,744 26	
Horse-shoeing, stock and clipping		408 61	
Amounts carried forward		$52,653 03	$70,148 00

Highways and Bridges—Continued.

STREET MAINTENANCE—Concluded.

Amounts brought forward		$52,653 03	$70,148 00
Lighting and supplies:			
Electric lighting	$619 80		
Lamps, lanterns and oil	67 85		
		687 65	
Lumber		245 68	
New equipment:			
Bicycle	$25 00		
Carriage	225 00		
Truck wheel for bran tub	2 01		
Wheels for tool chest	9 00		
		261 01	
Painters' supplies		380 86	
Renewals and repairs, stables		443 28	
Stable supplies		385 10	
Steam-roller repairs and supplies		877 67	
Stone-crusher repairs and supplies		568 35	
Stone:			
Field stone	$398 84		
Crushed stone	10,603 00		
		11,001 84	
Special road treatment		1,838 55	
Street signs		229 53	
Teaming, as per pay-roll		1,997 36	
Tools and repairs and miscellaneous supplies		827 67	
Sundries:			
Automobile hire	$10 00		
Car tickets	10 00		
Care and repair of flag at Porter Sq.	41 00		
Coal at First St.	80		
Expressage and freight	9 57		
Gloves	50		
"Municipal Journal & Engineer"	3 00		
Inspection pavements, New York	49 95		
Ice	27 85		
Repairs to side track at Raymond Street	95 95		
		248 62	
Total			72,646 20
Excess of expenditures over appropriation			$2,498 20
Transfer from Reserve Fund		$2,400 00	
Transfer from Street Lighting, General Expenses		98 20	
			$2,498 20

Highways and Bridges—Continued.

HORSES.

Appropriation			$5,000 00
EXPENDED.			
For horses		$5,000 00	
Total			$5,000 00

LAND DAMAGES

Appropriation brought from 1910			$5,299 09
Additional appropriation			10,000 00
EXPENDED.			
For change of grade		$100 00	
Recording deeds, etc		4 65	
Land damage, Mass. Ave.:			
Theodore H. Raymond	$10,391 76		
Chas. H. Pratt	3,310 00		
Sarah L. Colburn	848 61		
		14,550 37	
Land and damage, De Wolfe St.:			
Elizabeth J. D. Kennard		25 00	
Land and damage, Clarendon Ave.:			
Carrie L. Whitmore et al		550 00	
Total			15,230 02
Balance of appropriation			$69 07

CONSTRUCTION OF AMES STREET BETWEEN AMHERST AND MAIN STREETS

Appropriation			$12,000 00
EXPENDED.			
For labor, as per pay-roll		$3,799 40	
Cement		16 12	
Gravel		392 59	
Lumber		12 54	
Paving blocks		6,711 97	
Stable expense		149 65	
Tools		29 85	
Teaming, as per pay-roll		598 50	
Sewer work:			
Labor, as per pay-roll	$160 79		
Bricks	80 10		
Catch-basin	30 27		
Pipe and fittings	17 14		
		288 30	
Total			11,998 92
Balance unexpended			$1 08

Highways and Bridges—Continued.

CONSTRUCTION OF OTIS STREET EXTENSION

Appropriation brought from 1910	$219 90

EXPENDED.

For labor, as per pay-roll	$43 50	
Crushed stone	36 85	
Field stone	37 53	
Stable expense	10 00	
Teaming, as per pay-roll	54 00	
Total		$181 88
Balance of appropriation		$38 02

REBUILDING SUNDRY STREETS

Appropriation	$27,000 00

EXPENDED.

For Albany Street:			
Labor, as per pay-roll	$3,251 02		
Bricks	13 35		
Cement	228 00		
Gravel	466 95		
Paving Blocks	5,971 03		
Stable expense	70 60		
Tools	36 30		
Teaming, as per pay-roll	667 50		
		$10,704 75	
Charles Street:			
Labor, as per pay-roll	$1,130 39		
Advertising	6 50		
Concrete base	13,144 78		
Oil	32 20		
Teaming, as per pay-roll	831 00		
		$15,144 87	
Total			$25,849 62
Balance of appropriation			$1,150 38

Highways and Bridges—Continued.

REBUILDING SUNDRY STREETS

Appropriation			$50,800 00
Massachusetts Avenue:			
Labor, as per pay-roll	$4,971 24		
Advertising	5 50		
Bitulithic pavement	16,350 18		
Crushed stone	1,342 39		
Gravel	47 71		
Fuel, lighting supplies	174 08		
Stable expense	315 71		
Teaming, as per pay-roll	310 50		
		$23,517 31	
Putnam Avenue:			
Labor, as per pay-roll	$5,851 14		
Advertising	13 25		
Cement	713 38		
Concrete base and freight	4,946 43		
Fuel, lighting	26 95		
Gravel	228 27		
Lumber	80 45		
Pitch	288 20		
Stable supplies	129 35		
Testing bricks	9 87		
Tools, hardware and supplies	246 39		
Vitrified block paving and freight	7,317 79		
Teaming, as per pay-roll	1,950 75		
		21,802 22	
Prospect Street:			
Advertising		5 00	
Total			$45,324 53
Balance of appropriation			$5,475 47

CONSTRUCTION OF SUNDRY STREETS

Appropriation brought from 1910			$1,271 12
EXPENDED.			
For Hadley Street:			
Labor, as per pay-roll	$398 25		
Crushed stone	93 72		
Edgestone	318 02		
Gravel	18 60		
Stable supplies	27 56		
Total		$856 15	
Balance unexpended		$414 97	

Highways and Bridges—Continued.

EDGESTONES AND SIDEWALKS

Appropriation brought forward, 1910	$8,812 44
Additional appropriation	17,200 00
	$26,012 44

EXPENDED.

For labor, as per pay-roll	$10,698 73	
Allowance on artificial stone sidewalks	1,316 73	
Bricks	6,024 19	
Edgestone	5,798 91	
Gravel	1,016 43	
Lighting supplies	264 67	
Printing and binding	18 00	
Refund of edgestone assessment	13 09	
Stable expense	320 86	
Teaming, as per pay-roll	345 00	
Tools	195 62	
Total		26,012 23
Balance of appropriation		$0 21

SIDEWALK REPAIRS

Appropriation	$5,000 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For constructing driveways, etc.	$1,052 90

EXPENDED.

For labor, as per pay-roll	$5,838 67	
Bricks	124 03	
Edgestone	49 97	
Gravel	103 54	
Printing	7 50	
Repairing artificial stone sidewalks	75 00	
Stable expense	261 45	
Teaming, as per pay-roll	39 75	
Total		6,499 91
Excess of expenditure over appropriation		$1,499 91
Transfer from Reserve Fund		1,500 00
		$0 09

Highways and Bridges—Continued.

CROSSINGS

Appropriation		$2,500 00
EXPENDED.		
For labor, as per pay-roll	$996 55	
Granite flagging	452 34	
Gravel	53 11	
Paving blocks	450 00	
Stable expense	13 00	
Teaming, as per pay-roll	69 00	
Total		2,034 00
Surplus of appropriation transferred to Boston Bridge, General Expenses		$466 00

STREET SPRINKLING

Appropriation			$36,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For watering private ways		$262 79	
EXPENDED.			
For salary of foreman		$1,200 00	
Labor, as per pay-roll		1,584 08	
Sprinkling streets, by contractors		28,926 26	
Clerical services on assessments		69 25	
Carriage repairs		1 85	
Hardware, tools, etc		7 01	
Harness repairs		1 50	
Hay, grain and straw		219 74	
Special road treatment:			
Labor, as per pay-roll	$419 87		
Teaming, as per pay-roll	126 00		
Gravel	28 71		
Hose and couplings	3 35		
Repairing oil tank	8 49		
Tarvia	876 10		
Dust preventive	2,730 78		
Boots and shoes	27 50		
		4,220 80	
Standpipe repairs		97 85	
Watering cart repairs		359 94	
Printing		11 10	
Total			36,699 38
Excess of expenditure over appropriation			$699 38
Transfer from Reserve Fund			700 00
Balance relinquished to general treasury			$0 62

Highways and Bridges—Continued.

STREET LIGHTING

Salaries.

Appropriation	$1,000 00

EXPENDED.

For salary of Superintendent of Lamps	$1,000 00	
Total		1,000 00

General Expenses.

Appropriation	$78,900 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For damage to lamp post	$7 54

EXPENDED.

For automobile repairs and supplies		$269 59	
Heating fire alarm office		100 00	
Lighting streets:			
Arc	$57,432 83		
Series	11,235 81		
Gas	10,555 41		
		79,224 05	
Printing		5 45	
Setting and repairing lamp-posts		137 54	
Total			79,736 63
Excess of expenditure over appropriation			$836 63
Transfer from Reserve Fund			1,090 00
			$253 37
Transfer to Cemetery Dept., General Expenses		$20 80	
Transfer to Street Dept., Maintenance		98 20	
			119 00
Balance relinquished to general treasury			$134 37

Highways and Bridges—Continued.

STREET DEPARTMENT, BRIDGES

Appropriation			$5,500 00
EXPENDED.			
For salaries of draw-tenders		$4,721 23	
Labor, as per pay-roll		349 00	
Fuel		20 23	
Iron work		2 59	
Lumber		794 57	
Motor service		120 00	
Painting fences		20 00	
Planking by B. & M. R. R.		8 80	
Printing		4 00	
Tools and miscellaneous supplies		25 35	
Total			6,065 77
Excess of expenditure over appropriation			$565 77
Transfer from Crossings		$466 00	
Transfer from Reserve Fund		100 00	
			566 00
Balance relinquished to general treasury			$0 23

SUMMARY—EXPENDED.

For salaries of draw-tenders and assistants		$4,721 23	
First St. Bridge:			
Labor	$170 75		
Repairs and supplies	473 50		
		644 25	
Third St. Bridge:			
Labor	$81 50		
Repairs and supplies	221 08		
		302 58	
Sixth St. Bridge:			
Labor	7 00		
Repairs and supplies	3 62		
		10 62	
Wellington St. Bridge:			
Labor	$19 00		
Repairs and supplies	31 02		
		50 02	
Huron Ave. R. R. Bridge:			
Repairs and supplies		64 59	
Huron Ave. Pipe Line Bridge:			
Repairs and supplies		44 59	
Mt. Auburn St. Bridge:			
Labor	$70 75		
Repairs and supplies	157 14		
		227 89	
Total			$6,065 77

Highways and Bridges—Continued.

REPAIRING MOUNT AUBURN BRIDGE

Appropriation from Reserve Fund	$250 00

EXPENDED.

For labor, as per pay-roll	$49 50	
Lumber	190 53	
Tools and miscellaneous supplies	9 80	
Total		249 83
Surplus of appropriation transferred to general treasury		$0 17

REPAIRING SIXTH STREET BRIDGE

Appropriation, transferred from Reserve Fund	$5,000 00

EXPENDED.

For labor, as per pay-roll	$229 51	
Advertising	7 00	
Contract for rebuilding	4,912 40	
Teaming, as per pay-roll	3 00	
Total		$5,151 91
Excess of expenditure over appropriation		$151 91
Transfer from Reserve Fund		500 00
		$348 09
Transfer to Street Cleaning		348 09

BOSTON AND CAMBRIDGE BRIDGES

Salaries.

Appropriation	$10,000 00

EXPENDED.

For salaries of:			
Bridge Commissioners		$700 00	
Clerks		250 00	
Draw-tenders and care-takers:			
At Cambridge Bridge	$1,430 97		
Harvard Bridge	2,552 81		
Prison Point Bridge	2,529 86		
Amounts carried forward	$6,513 64	$950 00	$10,000 00

Highways and Bridges—Continued.

BOSTON AND CAMBRIDGE BRIDGES, SALARIES—Continued.

Amounts brought forward	$6,513 64	$950 00	$10,000 00
Boylston, River St. and Western Avenue Bridges	2,486 60		
		9,000 24	
Substitutes during vacations		163 28	
Total			$10,113 52
Excess of expenditure over appropriation			$113 52
Transfer from General Expenses		$15 14	
Transfer from River Street Bridge		98 38	
			$113 52

General Expenses.

Appropriation	$7,600 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For sale of old junk	$15 72

EXPENDED.

For Commissioners' and office expenses:			
Car tickets	$35 00		
Stationery, printing and office supplies (including $1.00 transfer)	19 75		
		$54 75	
Cambridge Bridge:			
Brooms	$11 25		
Cleaning	11 44		
Lighting	1,688 60		
Repairing lamp posts	13 50		
Sand	7 32		
Teaming	6 19		
Tools and miscellaneous	25 18		
		1,763 48	
Harvard Bridge:			
Cleaning bridge	$93 07		
Fuel for house	28 69		
Ice	3 00		
Lighting	893 44		
Repairs on stove	7 56		
Amounts carried forward	$1,025 76	$1,818 23	$7,600 00

Highways and Bridges—Continued.

BOSTON AND CAMBRIDGE BRIDGES, GENERAL EXPENSES—Continued.

Amounts brought forward		$1,025 76	$1,818 23	$7,600 00
Repairs to bridge:				
Carpentry	$759 15			
Castings and labor..	8 64			
Lumber	281 05			
Repairing fence and post	17 67			
Repairing motors, etc.	17 87			
Teaming	22 50			
		1,106 88		
Sand and spreading		289 75		
Tools and miscellaneous		19 75		
			2,442 14	
Boylston St. Bridge:				
Repairs:				
Carpenters	$220 00			
Lumber	218 80			
Supplies for repairs	4 72			
		$443 52		
			443 52	
Brookline St. Bridge:				
Lighting		$248 53		
Repairs:				
Carpenters	$566 97			
Lumber	247 25			
		814 22		
Tools		10 30		
			1,073 05	
Prison Point Bridge:				
Fuel		$11 45		
Plumbing at house		22 50		
Repairs:				
Carpenters	$157 75			
Iron work	1 60			
Lumber	196 55			
Supplies for repairs	2 69			
		358 59		
Tools and miscellaneous		17 65		
			410 19	
River Street Bridge:				
Fuel		$9 71		
Ice		3 90		
Lighting		45 00		
Amounts carried forward		$58 61	$6,187 13	$7,600 00

Highways and Bridges—Continued.

BOSTON AND CAMBRIDGE BRIDGES, GENERAL EXPENSES—Concluded.

Amounts brought forward	$58 61	$6,187 13	$7,600 00
Repairs:			
Lumber	$28 10		
Teaming	1 50		
	29 60		
Tools and miscellaneous	54 95		
		143 16	
Western Avenue Bridge:			
Lighting	$45 00		
Repairs:			
Carpenters	$53 36		
Lumber	77 16		
	130 52		
Tools and miscellaneous	2 70		
		178 22	
Total			6,508 51
Surplus of appropriation			$1,091 49
Transfer to Street Cleaning		$1,000 00	
Transfer to Boston Bridges, Salaries		15 14	
			$1,015 14
Balance relinquished to general treasury			$76 35

REPAIRING WESTERN AVENUE BRIDGE

Appropriation		$1,034 64
EXPENDED.		
Balance contract for repairs, W. H. Ellis	$1,034 64	
Total		$1,034 64

REPAIRING RIVER STREET BRIDGE

Appropriation		$3,300 00
EXPENDED.		
For advertising	$5 48	
Contract for rebuilding	3,047 34	
Guard rail	10 50	
Header beams	125 00	
Printing	13 30	
		$3,201 62
Excess of expenditures over appropriation		$98 38
Transfer to Boston Bridge Salaries		98 38

Highways and Bridges—Continued.

REPAIRING HARVARD BRIDGE

Appropriation from Reserve Fund		$350 00
EXPENDED.		
For repairs	$289 85	
Wooden blocks	57 13	
		$346 98
Surplus of appropriation relinquished to treasury		$3 02

CHARLES RIVER DAM APPORTIONMENT

Appropriation from Reserve Fund		$7,984 05
EXPENDED.		
For printing	$15 30	
Professional service	7,968 75	
Total		$7,984 05

CAMBRIDGE BRIDGE

Appropriation brought forward from 1910		$2,185 06
Additional appropriation		30,000 00
		$32,185 06
EXPENDED.		
For services of engineers	$3,750 00	
Consulting engineers	2,352 25	
Damage execution for raising grade Main Street	9,000 00	
Printing	2,550 89	
Services as Commissioners on Apportionment	2,025 00	
Services as counsel	8,817 39	
Total		$28,495 53
Balance of appropriation		$3,689 53

CAMBRIDGE BRIDGE APPROACH

Appropriation brought forward from 1910		$565 54
EXPENDED.		
For services estimating damages		$120 00
Balance of appropriation		$445 54

CHARITIES.

CITY HOME

Salaries.

Appropriation		$7,200 00
EXPENDED.		
For salary of superintendent	$1,500 00	
Sundry house employees	5,502 97	
Organist	100 00	
Total		$7,102 97
Surplus of appropriation		$97 03
Transfers:		
To City Home Expenses	$58 00	
To City Home Hospital, Salaries	38 00	
		96 00
Balance relinquished to general treasury		$1 03

General Expenses.

Appropriation			$13,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For board:			
Soldiers' Relief Dept.	$241 74		
Other cities	25 00		
Sundry persons	527 17		
		$793 91	
Barrels and bags		46 95	
Grease and bones		32 16	
Lead		1 00	
		$874 02	
EXPENDED.			
For advertising		$10 80	
Boots, shoes and repairs		165 17	
Brooms		17 50	
Burials		72 00	
Car tickets		100 00	
Cash to inmates		137 00	
Cash expended for sundries		1 85	
Clergymen's services		72 50	
Clothing, dry goods and bedding		1,480 77	
Directory		4 00	
Disinfectant and insecticide		146 40	
Expressage		25 65	
Fuel		1,016 24	
Furniture, furnishings and household supplies		469 00	
Amounts carried forward		$3,718 88	$13,000 00

Charities—Continued.

CITY HOME, GENERAL EXPENSES—Concluded.

Amounts brought forward		$3,718 88	$13,000 00
Gas		228 14	
House repairs and care of grounds:			
Bricks	$5 25		
Carpentry	57 17		
Crushed stone	10 38		
Elec. work	87 69		
Fire hose	68 00		
Heating apparatus	82 70		
Lumber	51 55		
Moth extermination	20 00		
Paper-hanging	29 63		
Plumbing	57 00		
Paint, varnish, etc.	63 91		
Roof repairs	176 80		
Tools and miscellaneous supplies for repairs	3 03		
Whitening	65 00		
		778 11	
Ice		506 15	
Lime		3 05	
Matches		20 00	
Medicines, drugs, etc.		267 61	
Motor service		60 27	
Newspapers and periodicals		43 25	
Oil		11 85	
Plants, seeds and labor		37 25	
Salt		37 20	
Sealing fees		1 42	
Services of Dentist		1 50	
Sharpening Saws		6 10	
Spectacles and repairs		24 85	
Soap and laundry supplies		274 37	
Stationery, printing and office supplies		67 32	
Surgical appliances		30 01	
Subsistence supplies		8,663 90	
Telephone service		103 25	
Toilet paper and fixtures		5 45	
Sundries		7 45	
Total			$14,897 38
Excess of expenditure over appropriation			$1,897 38
Transfer from Reserve Fund		$1,600 00	
Transfer from Salaries		58 00	
Transfer from Home Offal Labor		300 00	
			1,958 00
			$60 62
Transfer to City Home Hospital Expenses			55 81
Balance of appropriation relinquished to treasury			$4 81

Charities—Continued.

CITY FARM

Labor.

Appropriation		$3,600 00
EXPENDED.		
For salary of farmer	$780 00	
Farm labor	2,719 04	
Total		$3,499 04
Surplus of appropriation		100 96
Transfer to General Expenses		100 00
Balance relinquished to general treasury		$0 96

General Expenses.

Appropriation		$1,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.		
For sale of produce	$3,984 89	
EXPENDED.		
For cleaning trees, Park Dept.	$25 63	
Electric lighting	7 48	
Hay, grain and straw	262 08	
Horseshoeing	55 13	
Lumber	86 95	
Pigs	193 50	
Pullets	38 25	
Rent of stand	100 00	
Repairs to hen house	61 05	
Seeds, plants, etc.	158 76	
Tools and miscellaneous supplies	111 17	
Total		$1,100 00
Excess of expenditure over appropriation		$100 00
Transfer from Salaries		100 00

CITY HOME HOSPITAL

Salaries.

Appropriation		$950 00
EXPENDED.		
For salaries of:		
Nurse	$624 00	
Attendant	260 00	
Cleaner	104 00	
Total		$988 00
Surplus of appropriation transferred to City Home, Salaries		$38 00

Charities—Continued.

CITY HOME HOSPITAL—Concluded.

General Expenses.

Appropriation		$650 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For board:		
Soldiers' Relief Dept.	$114 27	
From the state	17 50	
Others	468 11	
	$599 88	

EXPENDED.

For Food	$229 04	
Fuel	111 68	
Furniture and furnishings	20 50	
Lighting	81 48	
Medical and surgical supplies	233 03	
Painting	12 25	
Plumbing	17 83	
Total		$705 81
Excess of expenditure over appropriation		55 81
Transfer from City Home General Expenses		55 81

OUTSIDE AID

Salaries.

Appropriation		$3,900 00

EXPENDED.

For salaries of:		
Secretary of Overseers of the Poor	$1,368 37	
Visitor	1,200 00	
Clerk	842 08	
Driver of aid wagon	477 50	
Total		3,887 95
Surplus of appropriation relinquished to general treasury		$12 05

General Expenses.

Appropriation		$20,000 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For reimbursements:		
From individuals	$77 00	
From other cities and towns	1,708 92	
From the state	943 29	
	$2,729 21	
Amount carried forward		$20,000 00

Charities—Continued.

OUTSIDE AID, GENERAL EXPENSES—Continued.

Amount brought forward			$20,000 00

EXPENDED.

For general administration:			
Advertising	$7 75		
Car tickets	200 00		
Directories	18 00		
Disinfectant	7 50		
Expressage	1 00		
Harness	50 00		
Ice	20 86		
Laundry and towel supply	7 95		
Lighting office	47 72		
Printing annual report	$170 00		
Telephone service	134 16		
Sundries	5 43		
Stationery and office supplies	265 78		
Wagon repairs	74 59		
		$1,010 74	
Outside relief:			
Board and care of children:			
By State board of charity	$561 82		
Boston Children's Aid Society	193 85		
Cambridge Relief Hospital	28 00		
Children's Hospital	34 50		
Children's Mission	300 00		
Convalescent Home	222 60		
Mass. Hospital School	2,032 00		
In private homes	963 62		
		4,336 39	
Board at Boston City Hospital		$1,290 01	
Board at Cambridge Hospital		171 42	
Board at Holy Ghost Hospital		148 56	
Board at State Infirmary		644 91	
Board at Cambridge Relief Hospital		294 51	
Partial support		84 25	
Burials		443 90	
Cash aid		2,647 50	
Expenses on account of persons sent to institutions:			
Ambulance hire	$48 00		
Attendants	83 00		
Railroad fares	51 75		
Sundries	1 97		
		184 72	
Supplies and distribution:			
Baskets, bags, twine, etc.	$17 38		
Clothing	57 64		
Food	4,505 99		
Fuel	789 81		
Amounts carried forward	$5,370 82	$11,256 91	$20,000 00

Charities—Continued.

OUTSIDE AID, GENERAL EXPENSES—Concluded.

Amounts brought forward	$5,370 82	$11,256 91	$20,000 00
Medicine	308 05		
Soap	74 07		
Spectacles	3 70		
Surgical supplies	15 79		
		5,772 43	
Services of physicians		80 00	
Transportation to foreign countries		89 38	
Repairing coal shed		250 00	
Relief given by other cities and towns		5,547 73	
Total			22,996 45
Excess of expenditure over appropriation			$2,996 45
Transfer from Reserve Fund			3,000 00
Surplus of appropriation relinquished to general treasury			$3 55

SALARY OF CITY PHYSICIAN

Appropriation		$2,000 00
EXPENDED.		
For salary of city physician	$2,000 00	
Total		$2,000 00

SOLDIERS' BENEFITS.

STATE AID—SOLDIERS' RELIEF

Appropriation			$29,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For state aid:			
From State	$13,916 00		
Money refunded	64 00		
		$13,980 00	
Military Aid:			
From State		351 00	
Soldiers' Relief:			
Town of Danvers	$114 00		
Town of Northboro	54 00		
Money refunded	34 00		
		202 00	
Amounts carried forward		$14,533 00	$29,000 00

Charities—Concluded.

STATE AID, SOLDIERS' RELIEF—Concluded.

Amounts brought forward		$14,533 00	$29,000 00
Soldiers' Burials:			
From State		814 00	
Board, sundry persons		222 00	
		$15,569 00	

EXPENDED.

For general administration:			
Salary of clerk	$574 52		
Stationery and office supplies	123 54		
		$698 06	
Soldiers' burials:			
Burial agent	$32 00		
Burials	565 00		
		597 00	
State Aid, as per pay-roll		12,784 00	
Military Aid, as per pay-roll		553 00	
Soldiers' Relief:			
Pay-roll	$12,286 00		
Relief by other cities and towns	248 79		
Board	461 92		
Carriage and ambulance hire	19 00		
Fuel	30 99		
Services of physicians	21 50		
Subsistence supplies	14 00		
		$13,082 20	
Total			$27,714 26
Surplus of appropriation relinquished to general treasury			$1,285 74

EDUCATION.

SCHOOL COMMITTEE EXPENSES.

Allowance for schools under Chapter 566, Acts of 1907	$524,687 95
Revenue appropriated, Chapter 362, Acts of 1908	10,822 26
	$535,510 21
Amount carried forward	$535,510 21

Education—Continued.

SCHOOL COMMITTEE EXPENSES—Continued.

Amount brought forward $535,510 21

DEPARTMENT RECEIPTS.

For tuition of state wards	846 50
Tuition at summer school, Harvard University	1,296 00
Tuition of non-resident pupils:	
At High Schools	876 00
At Rindge Manual Training School	2,760 00
At Elementary schools	18 00
Sale of text-books, etc	716 01
Deposits forfeited	48 00
Old materials from schoolhouses and building	258 91
Reimbursement on account of independent industrial schools, Com. of Mass.	3,986 06
Refund on account of purchase....	2 78
Use of telephone	14 00
	$10,822 26

EXPENDED.

For administrative salaries:			
Superintendent		$3,792 00	
Primary supervisor		1,350 00	
Evening supervisor		170 00	
			$5,312 00
Other general salaries:			
Agent and secretary		$2,850 00	
Office clerks		2,254 26	
Porter		700 00	
Truant officers		3,954 25	
Superintendent of buildings....		1,083 29	
			10,841 80
Other general expenses			2,186 03
Teachers' salaries:			
High Schools:			
English High ...	$27,984 17		
Latin	24,447 24		
		$52,431 41	
Rindge Manual Training School ..		31,739 02	
Wellington Teachers' Training School		15,803 11	
Grammar schools		146,748 40	
Primary schools		86,047 08	
Sewing teachers		2,887 25	
Kindergartens		19,249 74	
Fresh air		920 08	
Supervisor of drawing		2,850 00	
Supervisor of music		2,984 00	
Amounts carried forward		$301,660 09	$18,339 83 $535,510 21

Education—Continued.

SCHOOL COMMITTEE EXPENSES—Continued.

Amounts brought forward	$301,660 09	$18,339 83	$535,510 21
Directors in Physical Education		$2,141 92	
Manual training in grades	2,923 00		
Substitutes	4,708 54		
Unassigned	4,264 50		
Evening schools	11,298 00		
Special summer school	800 00		
Vacation schools	1,423 00		
		389,219 05	
Text-books and supplies		27,791 75	
Tuition:			
City of Boston, girls' trade school		383 21	
Transportation of pupils		327 00	
Support of truants		2,287 69	
Janitors' services		43,822 45	
Fuel and light:			
Coal and wood	$19,592 62		
Gas	747 66		
Electric lighting	2,126 12		
		$22,466 40	
Maintenance of buildings and grounds		27,773 04	
Furniture and furnishings		1,565 24	
For miscellaneous school expenses		1,390 96	
Total			535,366 62
Surplus of appropriation relinquished to general treasury			143 59

THORNDIKE SCHOOLHOUSE, LAND AND BUILDING

Reappropriation	$89,943 00
Additional appropriation	30,000 00
	$119,943 00

EXPENDED.

For advertising	$18 25	
Examination of title	30 00	
Amounts carried forward	$48 25	$119,943 00

Education—Concluded.

SCHOOL COMMITTEE EXPENSES—Concluded.

Amounts brought forward	$48 25	$119,943 00
Land	5,000 00	
Plans	2,071 55	
Recording deed	85	
Taxes, 1909	258 80	
Total		$7,379 45
Balance unexpended		$112,563 55

WEBSTER SCHOOLHOUSE ADDITION, LAND AND BUILDING

Reappropriation		$65,394 29

EXPENDED.

For land	$5,650 00	
Advertising	49 00	
Contract for building	45,501 99	
Contract for electric clock system	290 50	
Contract for electrical work	1,148 16	
Contract for carpenter	949 60	
Contracts for heating and ventilating	11,903 99	
Contract for plumbing	3,134 66	
Furniture and furnishings	3,110 33	
Mason work	72 75	
Painting	95 61	
Plans	1,787 85	
Recording deeds	1 30	
Removing old furnaces	29 50	
Repairs to boiler room	14 85	
Total		$73,740 09
Excess of expenditure over appropriation		$8,345 80
Transfer from School Dept.		8,345 00

LIBRARIES.

CENTRAL LIBRARY

Salaries.

Appropriation		$12,650 00

EXPENDED.

For salaries of:		
Librarian	$2,325 00	
Head assistant	950 00	
Amount carried forward	$3,275 00	$12,650 00

Libraries—Continued.

CENTRAL LIBRARY SALARIES—Concluded.

Amount brought forward	$3,275 00	$12,650 00
Other regular assistants	6,359 91	
Special cataloguer	98 75	
Sunday assistants, substitutes and pages	1,286 99	
Janitor and assistant	1,629 14	
Total		$12,649 79
Surplus of appropriation relinquished to general treasury		$0 21

General Expenses and Repairs to Building.

Appropriation			$9,850 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For fines	$843 05		
EXPENDED.			
For books and periodicals		$3,684 36	
Binding		1,377 55	
Art and musical collections:			
Assessment		6 00	
Fuel		436 68	
Lighting:			
Electric	$500 54		
Gas	271 98		
		772 52	
Care and repair of buildings:			
Furniture and furnishings	$260 95		
Inspection of boilers	10 00		
Janitor's supplies	35 47		
Soap	1 62		
Toilet paper	2 00		
Repairs:			
Carpentry	148 64		
Electrical work	491 65		
Painting and decorating	221 00		
Plumbing	54 11		
Roof repairs	57 39		
Supplies for repairs	6 55		
		1,289 38	
Other expenses:			
Annual report	$22 31		
Local stations	396 00		
Bulletins	293 25		
Baskets	8 58		
Car tickets	15 00		
Catalog cards	143 39		
Delivering to local stations	457 50		
Amounts carried forward	$1,336 03	$7,566 49	$9,850 00

Libraries—Continued.

CENTRAL LIBRARY, GENERAL EXPENSES AND REPAIRS TO BUILDINGS—Concluded.

Amounts brought forward	$1,336 03	$7,566 49	$9,850 00
Expressage	37 23		
Framed sign	6 50		
Membership, Am. Library Ass'n	5 00		
Ice	5 66		
Laundry work	15 04		
Letter press	3 00		
Printing, postage, stationery, etc.	521 06		
Services as cataloguer	189 30		
Telephone service	79 19		
Towels	6 00		
Typewriter and repairs	79 26		
		2,283 27	
Total			$9,849 76
Surplus of appropriation relinquished to general treasury			$0 24

EAST CAMBRIDGE BRANCH

Salaries.

Appropriation		$1,000 00
EXPENDED.		
For salaries of:		
Custodian	$700 00	
Assistant	110 46	
Janitor and substitute	189 50	
Total		$999 96
Balance relinquished to general treasury		$0 04

General Expenses.

Appropriation			$1,600 00
EXPENDED.			
For books and periodicals		$768 66	
Binding		324 26	
Art collections:			
Assessment, Library Art Club		3 00	
Lighting		76 33	
Care and repair of building:			
Furniture	$117 10		
Miscellaneous repairs	271 34		
		388 44	
Stationery, printing, etc.		38 94	
Total			$1,599 63
Balance relinquished to general treasury			$0 37

Libraries—Concluded

NORTH CAMBRIDGE BRANCH

Salaries.

Appropriation		$1,500 00
EXPENDED.		
For salaries of:		
Custodian	$692 80	
Assistants	537 05	
Janitor and substitute	270 00	
Total		$1,499 85
Surplus of appropriation relinquished to general treasury		$0 15

General Expenses.

Appropriation			$2,000 00
EXPENDED.			
For books and periodicals		$987 81	
Binding		256 66	
Art collections:			
Assessment, Library Art Club		3 00	
Stereograph		52 55	
Lighting		173 76	
Care and repair of building:			
Dusters, etc.	$12 62		
Furniture and furnishings	281 90		
Repairs:			
Clock repairs	1 00		
Electrical work	106 66		
Plumbing	33 14		
		435 32	
Other expenses:			
Ice		4 80	
Printing, postage, stationery, etc.		79 75	
Telephone		6 12	
Total			$1,999 77
Surplus of appropriation relinquished to general treasury			$0 23

RECREATION

PARK DEPARTMENT, CONSTRUCTION AND LANDS

Appropriation brought forward	$17 97
Additional appropriation	15,000 00
	$15,017 97
Amount carried forward	$15,017 97

Recreation—Continued.

PARK DEPARTMENT, CONSTRUCTION AND LANDS—Concluded.

Amount brought forward		$15,017 97
EXPENDED.		
For Labor, as per pay-roll	$746 50	
Advertising	4 25	
Lumber	16 00	
Plans, etc.	29 03	
Stone and repairs	7 20	
Filling, as per pay-roll	950 67	
Teaming, as per pay-roll	30 00	
		$1,783 65
Balance of appropriation		$13,234 32

COMPLETION OF RINDGE FIELD

Reappropriation		$592 23
EXPENDED.		
For labor, as per pay-roll	$585 50	
Total		$585 50
Balance unexpended		$6 73

SHOWER BATHS AT RINDGE FIELD

Appropriation		$2,000 00
EXPENDED.		
For labor, as per pay-roll	$25 50	
Advertising	9 00	
Bricks	3 48	
Carpentry and lumber	185 87	
Creosote shingle stain	22 10	
Electrical work	67 66	
Glazing	2 70	
Heating apparatus, contract	420 75	
Masonry	136 52	
Miscellaneous supplies	46 34	
Shower baths, contract	565 81	
Total		$1,485 73
Balance unexpended		$514 27

Recreation—Continued.

PARK DEPARTMENT MAINTENANCE

Salaries.

Appropriation		$2,300 00

EXPENDED.

For salaries of:		
General Superintendent of Parks	$1,500 00	
Clerk	800 00	
Total		$2,300 00

General Expenses.

Appropriation	$1,500 00
Transfer to Street Maintenance, for board of two horses	432 00
	$1,068 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For rent of boat-house	$500 00
Rent of land	1,437 60
Labor	70 14
	$2,007 74

EXPENDED.

For office expenses and telephone service:			
Advertising	$8 75		
Annual reports	60 22		
Binding	27 55		
Directory	4 00		
"Municipal Journal and Engineer"	3 00		
Photographic supplies	94		
Repairing lock	90		
Stationery, printing, etc.	132 91		
Telephone service	162 84		
		$401 11	
Stable expenses:			
Harness and repairs, etc.	$22 90		
Horse board	317 00		
Horse-shoeing	84 70		
		424 60	
Bicycle repairs		6 75	
Carriage repairs		21 55	
Entertainments of Committee		78 55	
Expenses of Supt. to Bridgewater		1 30	
Expressage		45	
Oil		13 28	
Amounts carried forward		$947 59	$1,068 00

Recreation—Continued.

PARK DEPARTMENT MAINTENANCE, GENERAL EXPENSES—Continued.

Amounts brought forward	$947 59	$1,068 00
Tools and miscellaneous	17 82	
Wagon repairs	1 50	
Total		966 91
Surplus of appropriation		$101 09
Transfer to Shade Trees		100 00
Balance relinquished to general treasury		$1 09

Commons, Squares and Public Grounds.

Appropriation		$4,100 00
EXPENDED.		
For labor, as per pay-roll	$3,428 79	
Expressage	2 00	
Goal posts	10 16	
Housing and repairing flag-poles	68 00	
Iron fence repairs	25 85	
Lighting	320 04	
Lubricating oil	13 13	
Plants and trees	10 00	
Printing	3 50	
Repairs to board walk	117 09	
Slats for settees	8 70	
Stakes	20 00	
Teaming, as per pay-roll	87 00	
Tools and miscellaneous supplies	39 67	
Total		$4,153 93
Excess of expenditure over appropriation		$53 93
Transfer from River Parkway		54 00
		$0 07

Longfellow Memorial Park

Appropriation transferred from Reserve Fund		$250 00
EXPENDED.		
For labor, as per pay-roll	$250 00	
Total		$250 00

Recreation—Continued.

PARK DEPARTMENT MAINTENANCE—Continued.

River Parkway.

Appropriation		$7,000 00
EXPENDED.		
For labor, as per pay-roll	$3,998 50	
Ashes	10 03	
Lighting	2,762 34	
Raft repairs	25	
Signs	5 25	
Stakes, lumber, etc.	32 63	
Turning on water	1 00	
Trees	93 50	
Tools and miscellaneous supplies	13 85	
Watering cart repairs	9 00	
Total		$6,926 35
Surplus of appropriation		$73 65
Transfer to Cambridge Field and Shelter	$19 65	
Transfer to Commons, Squares, etc.	54 00	
		73 65

SUMMARY—EXPENDED.

For Section A:		
Lighting		$177 60
Section B:		
Labor	$1,339 25	
Lighting	769 56	
Supplies	3 62	
		2,112 43
Section C:		
Supplies		57 76
Section D:		
Labor	$720 25	
Lighting	542 34	
Supplies	11 03	
Teaming	9 00	
		1,282 62
Section F:		
Labor	$683 50	
Lighting	503 16	
Supplies	3 75	
		1,190 41
Section G:		
Labor	$1,255 50	
Lighting	769 68	
Supplies	80 35	
		2,105 53
Total		$6,926 35

Recreation—Continued.

PARK DEPARTMENT MAINTENANCE—Continued.

Cambridge Field and Shelter.

Appropriation	$6,000 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For use of towels	$415 18	

EXPENDED.

For the Field:			
Labor, as per pay-roll		$1,935 88	
Care and repair of flag pole		24 00	
Hose		11 00	
Lighting		481 94	
Plants and trees		384 65	
Stakes and lumber		32 12	
Teaming, as per pay-roll		93 00	
Tools, etc.		30 13	
			$2,992 72
The Shelter:			
Salaries of:			
Superintendent		$1,040 00	
Matron		520 00	
Cleaner		780 00	
Ash barrels		8 00	
Brooms, mops, etc.		2 15	
Fuel		128 75	
Lighting		202 96	
Laundering towels		213 87	
Printing, stationery and supplies		7 62	
Repairs:			
Linsed oil	$0 25		
Lumber	21 22		
Painting, glazing, etc.	17 85		
		39 32	
Soap and powder		44 00	
Toilet paper		13 00	
Towels		27 00	
			3,026 67
Total			6,019 39
Excess of expenditure over appropriation			$19 39
Transfer from River Parkway			19 65
Balance of appropriation relinquished to general treasury			$0 26

Recreation—Continued.

PARK DEPARTMENT MAINTENANCE—Continued.

Rindge Field.

Appropriation			$1,800 00

EXPENDED.

For the Field:			
Labor, as per pay-roll	$1,194 13		
Lighting	239 16		
Slats for settees	9 35		
Supplies	1 00		
Teaming	12 00		
		$1,455 64	
The Shelter:			
Salary of matron	$180 00		
Lumber	5 84		
Mops, dusters, etc	22 19		
Off and on	1 00		
Plumbing	12 00		
Fuel for nursery	44 40		
Soap and soap powders	8 70		
Toilet paper	57 20		
Towels	13 00		
		344 33	
Total			1,799 97
Surplus of appropriation relinquished to general treasury			$0 03

Sand Gardens.

Appropriation			$200 00

EXPENDED.

For labor, as per pay-roll		$34 00	
Sand		139 11	
Sand boxes		20 45	
Teaming		6 00	
Total			199 56
Surplus of appropriation relinquished to general treeasury			$0 44

Recreation—Continued.

PARK DEPARTMENT MAINTENANCE.—Concluded.

BATH HOUSE, CAPTAIN'S ISLAND

Appropriation	$1,800 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For use of suits, towels, etc.	$895 35

EXPENDED.

For salaries of:		
Bathhouse keepers	$657 50	
Life guards	320 00	
Matrons	234 29	
		$1,211 79
Labor, as per pay-roll		18 87
Analysis of water		5 00
Bathing suits		98 23
Disinfectant		26 75
Hardware and tools		17 29
Labels for suits		16 70
Laundry		163 15
Lighting		143 12
Medical supplies		1 78
Printing and stationery		23 98
Repairs to buildings		7 66
Repairs to raft		6 46
Supplies, combs, brushes, etc.		5 95
Towels		52 80
Total		1,799 53
Surplus of appropriation relinquished to general treasury		$0 47

MILL POND LAND

Appropriation	$150 00

EXPENDED.

For labor, as per pay-roll	$138 00	
Teaming, as per pay-roll	12 00	
Total		$150 00

Recreation—Continued.

CELEBRATION OF INDEPENDENCE DAY

Appropriation		$800 00
EXPENDED.		
For badges	$2 00	
Balls	10 00	
Dinners	16 85	
Erecting bandstands	40 33	
Fireworks	45 00	
Games	75 00	
Music	300 00	
Printing	1 50	
Ringing bells	36 00	
Services taking tickets	2 00	
Services of umpires	15 00	
Use of chairs	25 69	
Use of scow for fireworks	205 00	
Total		$782 37
Surplus of appropriation relinquished to general treasury		17 63

CELEBRATION OF LABOR DAY

Appropriation from Reserve Fund		$300 00
EXPENDED.		
For badges	$8 00	
Balls	10 00	
Game	50 00	
Placing handicaps	10 00	
Printing	7 50	
Prizes	185 00	
Sanction for games	10 00	
Services of umpire	15 00	
Sundries	4 40	
Total		299 90
Surplus of appropriation relinquished to general treasury		$0 10

CELEBRATION—50TH ANNIVERSARY FIRST VOLUNTEERS

Appropriation from Reserve Fund		$1,000 00
EXPENDED.		
For amount spent by Treasurer	$1,000 00	
Total		$1,000 00

Recreation—Continued.

PLAYGROUND COMMISSION

Appropriation from Reserve Fund		$1,000 00
EXPENDED.		
For salary of Supt.	$110 00	
Summer director	25 00	
		$135 00
Surplus of appropriation		$865 00
Transfer to General Expenses		850 00
Balance of appropriation relinquished to general treasury		$15 00

General Expenses.

Appropriation from Reserve Fund		$500 00
EXPENDED.		
For athletic goods	$304 50	
Bases, trapeze, etc.	108 10	
Building swings, etc.	18 50	
Drinking fountains	31 30	
Expressage	1 95	
Filling for jumping pitts	35 25	
Kindergarten supplies	233 98	
Lumber	238 16	
Mounting maps	4 75	
Photograph halftones, etc.	106 00	
Plans and perspectives	97 00	
Printing annual report	158 99	
Typewriting	3 00	
		$1,341 48
Excess of expenditure over appropriation		$841 48
Transfer from Salaries		850 00
Balance of appropriation relinquished to general treasury		$8 52

LAND FOR PLAYGROUNDS

Appropriation		$50,000 00
EXPENDED.		
For land purchased	$47,503 95	
Examination of titles	350 00	
Old taxes	670 68	
Recording deeds, etc.	14 40	
		$48,539 03
Balance unexpended		$1,460 97

Recreation—Concluded.

CELEBRATION OF MEMORIAL DAY

Appropriation		$1,200 00
EXPENDED.		
For observance of Memorial Day by the Grand Army of the Republic and Spanish War Veterans	$1,200 00	
Total		$1,200 00

UNCLASSIFIED.

DAMAGES TO PERSONS AND PERSONAL PROPERTY

Appropriation			$2,000 00
EXPENDED.			
For executions of court:			
Margaret Brunnell for injuries from defect in street	$25 00		
Edward T. Brett, for injuries received from caving in of ditch	2,500 00		
Louise F. Gould, injuries received from defective sidewalk	225 00		
Frank H. Hannaford, for damages to buggy, colliding with posts in street	130 97		
Mary A. Hannaford, for injuries from collission of buggy with posts	1,103 06		
		$3,984 03	
Damages awarded:			
Damages to clothing from tree guards, etc.:			
A. E. Colwell	$3 00		
Elizabeth Walker	2 00		
		5 00	
Injuries received by Fire Dept. horse:			
Daniel J. Fitzgerald		25 00	
Injuries from defects in streets, etc.:			
Alice M. Cunningham	$50 00		
Ellen M. Danehy	25 00		
Isaac Falk	75 00		
Helen H. Farrell	75 00		
Maria T. Ordway	10 00		
Sarah J. Perkins	100 00		
		$335 00	
Damage to fence by Sprayer:			
Patrick G. McDermott		20 70	
Amounts carried forward		$4,369 73	$2,000 00

Unclassified—Continued.

Amounts brought forward	$4,369 73	$2,000 00
Damage to automobile by defect in street:		
Howard P. Farmer	19 00	
Total		$4,388 73
Excess of expenditure over appropriation		$2,388 73
Transfer from Reserve Fund		2,400 00
Balance of appropriation relinquished to general treasury		$11 27

POSTAGE AND STATIONERY

Appropriation	$1,700 00

DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.

For stationery furnished to:		
Assessors' Department	$92 77	
Auditing Department	38 22	
Cemetery Department	78 23	
City Clerk's Department	187 19	
City Council expenses	26 95	
City Messenger's Department	155 81	
Clerk of Committees	94 27	
Election Expenses, City Clerk	99 31	
Electrical Department	16 01	
Engineering Department	23 49	
Fire Department	59 33	
Health Department	88 41	
Inspector of Milk	3 27	
Law Department	15 97	
Mayor's Department	69 27	
Overseers of the Poor	52 00	
Park Department	133 32	
Police Department	28 77	
Public Library	81 24	
Registrars of Voters	16 33	
Sealer of Weights and Measures	5 86	
Sewer Department	10 23	
State Aid	25 59	
Street Department	82 49	
Superintendent of Buildings	63 04	
Treasury Department	44 43	
Water Department	75 52	
Board of Appeal	10 62	
	$1,677 94	
Amount carried forward		$1,700 00

Unclassified—Concluded.

POSTAGE AND STATIONERY—Concluded.

Amounts brought forward		$1,700 00
EXPENDED.		
For postage and stamped envelopes	$1,050 00	
Stationery and office supplies	683 13	
Total		$1,733 13
Excess of expenditure over appropriation		$33 13
Transfer from Treasury Dept. General Expenses		33 13

INDEMNIFYING POLICE OFFICER

Appropriation from Reserve Fund		$740 50
EXPENDED.		
For indemnification	$740 50	
Total		$740 50

NEW FLAG STAFF SOCKET

Appropriation		$500 00
EXPENDED.		
For flag staff socket	$500 00	
Total		$500 00

ABATEMENT "SMOKE NUISANCE TAX"

Appropriation from Reserve Fund		$532 16
EXPENDED.		
For State tax	$532 16	
Total		$532 16

TAXES FOR LAND ON WINDSOR STREET

Appropriation from Reserve Fund	$79 61	
EXPENDED.		
For 1908 taxes	$79 61	
Total		$79 61

GREATER BOSTON REAL ESTATE EXPOSITION.

Appropriation from Reserve Fund		$200 00
EXPENDED.		
For exhibit	$200 00	
Total		$200 00

PUBLIC SERVICE ENTERPRISES.

WATER WORKS

Construction General.

Reappropriation	$3,664 45
Additional appropriation	6,500 00
	$10,164 45

DEPARTMENT RECEIPTS.

For labor and materials	$1,207 99

EXPENDED.

For labor, as per pay-roll	$3,837 70	
Advertising	9 00	
Expressage and freight	3 22	
Gates and valves	30 58	
Meters	570 00	
Pipe and castings	1,540 36	
Repairs on street	22 00	
Stationery	31 00	
Teaming	6 00	
Tools	5 40	
Total		6,063 26
Balance of appropriation		$4,101 19

Changes on Account of Subway Construction.

Reappropriation	$9,812 17
Additional appropriation	17,000 00
	$26,812 17

DEPARTMENT RECEIPTS.

For labor and materials:	
Boston Elevated Railway Co.	$17,789 42

EXPENDED.

For labor, as per pay-roll	$14,810 94	
Advertising	8 00	
Expressage	12 52	
Gate boxes	485 18	
Gates and valves	1,030 67	
Hydrants	109 00	
Lead and lead pipe	979 43	
Meters	385 00	
Off set	10 76	
Pipe and fittings	3,575 48	
Piling pipe and wharfage	81 83	
Services of flagmen	6 66	
Teaming pipe	64 00	
Tools	101 77	
Total		21,661 24
Balance of appropriation		$5,150 93

Public Service Enterprises—Continued.

WATER WORKS—Continued.

Construction, Hobbs Brook Conduit.

Appropriation, brought from 1910			$5,561 60
Additional appropriation			10,000 00
			$15,561 60

EXPENDED.

For examining titles and legal services		$725 00	
Land and damage:			
Fannie E. Bemis	$4,200 00		
Horace Chenery	1,875 00		
Susan M. Burke	372 45		
First Baptist Church of Watertown	5,488 00		
Lyndonsville Creamery Assoc.	1,500 00		
		13,435 45	
Moth assessment, Town of Watertown		16 95	
Flushing Town of Watertown		26 06	
Recording documents		5 96	
Services of commissioners		605 83	
Services of stenographers		81 33	
Solicitor's expenses		23 13	
Telephone		6 50	
Total			$14,926 21
Balance of appropriation			$635 39

Maintenance, Salaries of Superintendent, Registrar, Inspectors and Clerks.

Appropriation			$12,020 00

EXPENDED.

For salaries of:			
Superintendent		$2,200 00	
Registrar and Clerk of Water Board		2,500 00	
Inspectors		3,145 00	
Clerks		4,451 67	
Total			$12,296 67
Excess of expenditure over appropriation			$276 67
Transfer from Revenue			276 67

Public Service Enterprises—Continued.

WATER WORKS—Continued.

Maintenance General and Reservoirs.

Appropriation			$40,000 00

DEPARTMENT RECEIPTS CARRIED TO CREDIT OF WATER WORKS.

For water rates		$378,849 63	
Miscellaneous bills:			
Maintenance	$3,029 13		
Off and on	462 06		
Rent	66 00		
Seals	53 75		
Supply	6,693 94		
Supply other departments	99 22		
		10,404 10	
		$389,253 73	

EXPENDED.

For maintenance General:			
For labor, as per pay-roll	$20,914 05		
Services of electrical expert	200 00		
Advertising	8 00		
Automobile supplies and repairs	161 63		
Automobile registration	5 50		
Carriage and wagon repairs	155 34		
Carriage hire and teaming	271 00		
Car tickets	179 50		
Cement	5 37		
Charts	6 00		
Damage from flooding cellar, Cornelius J. Lane	200 00		
Damage caused by break in hydrant, Michael Cleary	10 00		
Damage to property, Theo. F. Burke	7 50		
Damage to property, K. S. Taylor	12 02		
Damage caused by break in pipe, Mrs. A. Rantenberg	15 00		
Electrical supplies	34 30		
Entertainment of City Government and inspections by Board:			
Automobile hire	$404 25		
Dinners	291 48		
	695 73		
Expressage and freight	49 12		
Fountain repairs and cups	135 39		
Fuel	67 50		
Grain and straw	517 02		
Harness and repairs, etc.	98 20		
Horse-shoeing and clipping	351 75		
Hose and rubber goods	11 64		
Hydrant posts, fittings and repairs	82 57		
Amounts carried forward	$24,194 13		$40,000 00

Public Service Enterprises—Continued.

WATER WORKS, MAINTENANCE GENERAL AND RESERVOIRS—Continued.

Amounts brought forward	$24,194 13		$40,000 00
Ice for yard	5 29		
Junk weigher	2 27		
Lighting buildings at yard	12 07		
Lumber	72 51		
Meter repairs	429 90		
Motor service	61 67		
Office expenses and telephones:			
Addressograph supplies $13 21			
Directories 4 00			
Newspapers and periodicals 9 13			
Stationery, printing, etc. 830 05			
Telephone service 187 82			
	1,044 21		
Oil, soap and packing	97 61		
Paving stones	25 30		
Painting, etc.	33 24		
Pipe and fittings	4,869 36		
Plumbing and supplies	1 86		
Repairs on scales	56 63		
Sealing weights	3 78		
Sinking fund expenses:			
Salary of Treasurer $200 00			
Rent of safe deposit box 40 00			
	240 00		
Street repairs	106 22		
Street watering standpipes	17 91		
Taxes and moth assessments:			
City of Waltham $617 80			
Town of Belmont 305 69			
Town of Lexington 241 61			
Town of Lincoln 162 31			
Town of Watertown 78 40			
Town of Weston 269 81			
	1,675 62		
Tools and miscellaneous	529 09		
Trees removed	30 00		
		$33,508 67	
Fresh Pond Reservoir:			
Labor, as per pay-roll	$7,822 64		
Advertising	39 38		
Auctioneer's services	10 00		
Amounts carried forward	$7,872 02	$33,508 67	$40,000 00

Public Service Enterprises—Continued.

WATER WORKS, MAINTENANCE GENERAL AND RESERVOIRS—Continued.

Amounts brought forward	$7,872 02	$33,508 67	$40,000 00
Bicycle repairs	24 35		
Building repairs	11 48		
Expressage	25		
Fence repairs	69 45		
Firearms and repairs	13 32		
Grain	76 85		
Harness repairs	6 00		
Horse-shoeing	18 76		
Moth extermination supplies	48 45		
Plough and repairs	3 99		
Roadway repairs	35 70		
Sanitary repairs	28 43		
Sponges and chamois	2 50		
Teaming	69 00		
Tools and miscellaneous supplies	51 51		
		8,332 06	
Hobbs Brook Reservoir:			
Salary of keeper	$782 15		
Building repairs	29 73		
Car tickets	5 00		
Grain	66 78		
Harness repairs	6 85		
Horse-shoeing	24 50		
House furnishings	7 74		
Inspector	240 00		
Labor, haying	16 00		
Printing and stationery	11 00		
Services as watchman	5 00		
Sponges	5 00		
Telephone service	20 78		
Tools and miscellaneous	15 38		
Trees removed	10 00		
		1,245 91	
Payson Park Reservoir:			
Salary of keeper	$834 28		
Labor, as per pay-roll	62 00		
Fuel	14 50		
Manure	77 50		
		988 28	
Stony Brook Reservoir:			
Salary of keeper	$912 50		
Salary of assistant	638 75		
Labor, haying	20 00		
Cesspool and vault cleaning	316 40		
Fuel	12 00		
Harness	30 00		
Hay and grain	86 83		
Hose and couplings	22 85		
Horse-shoeing	45 72		
Inspector	240 00		
Permit to empty sewage	50 00		
Moth extermination supplies	19 50		
Amounts carried forward	$2,394 55	$44,074 92	$40,000 00

Public Service Enterprises—Continued.

WATER WORKS, MAINTENANCE GENERAL AND RESERVOIRS—Concluded.

Amounts brought forward	$2,394 55	$44,074 92	$40,000 00
Mowing	8 00		
Teaming	352 15		
Telephone service	58 56		
Tools and miscellaneous	42 10		
Wagon repairs	37 30		
Water rates, Waltham	14 00		
Wagon rent	15 00		
		2,921 66	
Total			46,996 58
Excess of expenditure over appropriation			$6,996 58
Additional appropriation from Revenue			7,000 00
Balance of appropriation relinquished			$3 42

Maintenance, Pumping, Salaries.

Appropriation			$9,100 00
EXPENDED.			
For salaries of:			
Engineer	$1,310 19		
Assistant engineer	1,252 00		
Engineer and assistant, temporary	313 33		
		$2,875 52	
Labor, as per pay-roll		6,197 04	
Total			$9,072 56
Surplus of appropriation relinquished			$27 44

General Expenses.

Appropriation			$8,000 00
Additional appropriation			6,000 00
			$14,000 00
EXPENDED.			
For advertising		$29 00	
Brooms, brushes, etc.		3 30	
Cement		3 00	
Electrical work and supplies		70 57	
Engine and boiler supplies and repairs		102 63	
Inspection of boilers		15 00	
		$223 50	
Amounts brought forward		$223 50	$14,000 00

Public Service Enterprises—Continued.

WATER WORKS, PUMPING, GENERAL EXPENSES—Concluded.

Amounts carried forward	$223 50	$14,000 00
Expressage	8 60	
Fuel	9,888 53	
Ice	17 44	
Oil, waste and packing	882 32	
Repairs to buildings	206 77	
Repairs to clock	1 50	
Report hearings in case of suspended employees	200 00	
Sealing weights	1 64	
Stationery	6 75	
Telephone service	62 11	
Testing coal	15 68	
Testing grease	5 00	
Tools and miscellaneous supplies	54 32	
Total		11,574 16
Surplus of appropriation relinquished		$2,425 84

GRADING AT HURON AVENUE

Appropriation from Revenue		$650 00

EXPENDED.

For labor, as per pay-roll	$106 00	
Total		$106 00
Balance of appropriation relinquished		$544 00

STUDY OF WATER SUPPLY

Appropriation from Revenue		$5,000 00

EXPENDED.

For labor, as per pay-roll	$160 00	
Counsel fee	500 00	
Fuel	8 00	
Instruments and repairs	28 07	
		$696 07
Balance of appropriation relinquished		$4,303 93

Public Service Enterprises—Continued.

REPAIRS TO PUMPING STATION

Appropriation		$1,000 00
Additional appropriation from revenue		400 00
		$1,400 00
EXPENDED.		
For fuel	$105 00	
Mason	32 44	
Painting	1,198 00	
		$1,335 44
Surplus of appropriation relinquished		$64 56

Meters.

Appropriation		$2,000 00
Additional appropriation from Revenue		2,830 00
		$4,830 00
EXPENDED.		
For labor, as per pay-roll	$1,097 49	
Advertising	5 50	
Cement, etc.	39 90	
Expressage	12 03	
Fittings and supplies	346 38	
Lumber	42 28	
Meters	3,238 37	
Stone dust	42 07	
Total		$4,824 02
Surplus of appropriation relinquished		$5 98

Ice for Fountains.

Appropriation		$850 00
EXPENDED.		
For ice	$712 65	
Total		$712 65
Surplus of appropriation relinquished		$137 35

Serial Loan.

Appropriation		$12,500 00
EXPENDED.		
To redeem matured bond	$12,500 00	
Total		12,500 00

Public Service Enterprise—Concluded.

WATER WORKS—Concluded.

Services of City Treasurer and City Solicitor.

Appropriation		$2,500 00
EXPENDED.		
For services of City Treasurer in collection of water rates, etc.	$1,500 00	
Services of City Solicitor	1,000 00	
Total		2,500 00

Abatements and Refunds.

Appropriation		$3,500 00
EXPENDED.		
For abatements, as per registrar's certificates	$2,023 66	
Refunds, as per registrar's certificates	1,156 53	
Total		3,180 19
Surplus of appropriation relinquished		$319 81

CEMETERIES.

CAMBRIDGE CEMETERY

Salaries and Labor.

Appropriation			$15,000 00
EXPENDED.			
For salaries of:			
George D. Ford	$666 67		
Superintendent Joseph A. Wolcott	880 79		
Clerk and substitute	1,120 00		
Clerk, acting as superintendent	100 00		
Clerk of Board	150 00		
Foreman	1,200 00		
		$4,117 46	
Labor, as per pay-roll		11,065 17	
Total			$15,182 63
Excess of expenditure over appropriation			$182 63
Transfer from General Expenses			200 00
Balance relinquished to general treasury			$17 37

General Expenses.

Appropriation			$2,000 00
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
For brick and slate graves	$523 00		
Burials	3,283 00		
Care of lots	2,391 72		
Chapel	54 00		
Foundations	999 41		
Rent of house	84 00		
Repairs	316 89		
Sundries	211 42		
Interest on perpetual care fund	3,069 70		
Sale of lots and graves	10,841 70		
	$21,774 84		
EXPENDED.			
For commissioners' and office expenses:			
Binding	$3 85		
Bonds for clerks	21 00		
Car tickets	20 00		
Directory	4 00		
Fuel	84 00		
Gas	12 58		
Soap	60		
Stationery, printing, etc.	181 12		
Subscriptions	1 00		
Telephone service	60 27		
		$388 42	
Cement		103 29	
Conveyance of lot		20 00	
Crushed stone		138 80	
Decorating monument		20 00	
Expressage		4 50	
Granite markers		162 46	
Amounts carried forward		$837 47	$2,000 00

Cemeteries—Concluded.

CAMBRIDGE CEMETERY, GENERAL EXPENSES—Concluded.

Amounts brought forward	$837 47	$2,000 00
Gravel, sand and stone dust	13 25	
Hay, grain and straw	104 61	
Horse-shoeing	22 75	
Hose and attachments	33 15	
Lumber	5 56	
Manure	188 27	
Moth extermination	101 15	
Overalls and coats	9 60	
Pung repairs	1 50	
Plants, seeds, etc.	170 45	
Slate slabs	69 70	
Sods	88 75	
Tools and miscellaneous supplies	174 59	
Total		1,820 80
Surplus of appropriation		$179 20
Transfer to salaries		200 00
Transfer from Street Lighting General Expenses		$20 80

Grading.

Appropriation		$1,000 00
EXPENDED.		
For labor, as per pay-roll	$999 25	
Total		999 25
Surplus of appropriation relinquished to general treasury		$0 75

ADMINISTRATION OF INVESTED FUNDS.

SINKING FUND EXPENSES.

Appropriation		$365 00
EXPENDED.		
For salary of Treasurer of Sinking Funds	$300 00	
Clerk to Sinking Fund Commissioners	25 00	
Rent of safe deposit box	40 00	
Total		365 00

INTEREST.

Appropriation			$304,541 25
DEPARTMENT RECEIPTS CARRIED TO GENERAL TREASURY.			
Interest on bank deposits:			
Cambridge Trust Co.	$1,538 91		
Central Trust Co.	1,506 51		
Harvard Trust Co.	2,885 90		
Chas. River. Nat. Bank	2,063 75		
Lechmere Nat. Bank	1,260 80		
Shawmut National Bank	674 49		
		$9,930 36	
Amounts carried forward		$9,930 36	$304,514 25

Interest—Concluded.

Amounts brought forward		$9,930 36	$304,514 25
Interest on overdue taxes		12,315 25	
Interest on sewer assessments		3 42	
Interest on sidewalk assessments		50 63	
Accrued interest on bonds:			
Cambridge Bridge	$22 22		
Park	24 80		
Playground	55 56		
Schoolhouse	143 04		
Municipal	8 89		
Sewer	44 30		
Hospital	73 89		
Street	147 83		
		520 53	
		$22,820 19	

EXPENDED.

For interest on loant in anticipation of taxes		$3,679 44	
Interest on trust funds:			
Sanders Temperance Fund	$600 00		
Daniel White Charity	300 00		
Dowse Fund	600 00		
		1,500 00	
Interest on bonds:			
Street loans	$35,442 50		
Cambridge Bridge loan	58,830 00		
Harvard Bridge loans	16,120 00		
Commercial Avenue Bridge loans	2,000 00		
Cambridge Bridge Special loans	980 00		
Clay Land loans	4,765 00		
Schoolhouse loans	38,013 25		
Sewer loans	37,660 00		
Public Library loan	945 00		
Hospital loan	2,910 00		
Metropolitan Park Assessment loan	1,610 00		
Park loans	58,708 00		
Cemetery loans	245 00		
Miscellaneous Building and City loans	37,715 00		
Playground loan	1,000 00		
		296,943 75	
Total			$302,123 19
Surplus of appropriation relinquished to general treasury			$2,418 06

INTEREST ON WATER LOAN

Appropriation		$137,582 75

DEPARTMENT RECEIPTS CARRIED TO CREDIT OF WATER WORKS.

For accrued interest on water bonds	$455 33

INTEREST ON WATER LOAN—Continued.

EXPENDED.

For interest on water loans	$137,582 75	
Total		$137 582 75

SINKING FUNDS.

BROOKLINE BRIDGE

Amount of Fund, March 31, 1910	$1,037 48	
Interest accumulations, 1910	31 36	
Appropriation for 1910	333 33	
Amount of Fund, March 31, 1911		$1,402 17

CAMBRIDGE BRIDGE

Amount of Fund, March 31, 1910	$124,522 39	
Interest accumulations, 1910	3,763 69	
Appropriation for 1910	21,333 33	
Amount of Fund, March 31, 1911		$149,619 41

CAMBRIDGE BRIDGE SPECIAL

Amount of Fund, March 31, 1910	$3,298 45	
Interest accumulations, 1910	99 69	
Appropriation for 1910	616 00	
Amount of Fund, March 31, 1911		$4,014 14

COMMERCIAL AVENUE BRIDGE

Amount of Fund, March 31, 1910	$2,074 98	
Interest accumulations, 1910	62 71	
Appropriation for 1910	666 67	
Amount of Fund, March 31, 1911		$2,804 36

HARVARD BRIDGE

Amount of Fund, March 31, 1910	$240,612 93	
Interest accumulations, 1910	7,272 52	
Appropriation for 1910	8,800 00	
Amount of Fund, March 31, 1911		$256,685 45

CITY OF CAMBRIDGE, ACTS OF 1908

Amount of Fund, March 31, 1910	$36,000 00	
Interest accumulation, 1910	1,088 10	
Appropriation for 1910	36,000 00	
Amount of Fund, March 31, 1911		$73,788 10

CLAY LANDS

Amount of Fund, March 31, 1910	$75,225 37	
Interest accumulations, 1910	2,273 69	
Appropriation for 1910	5,335 00	
Amount of Fund, March 31, 1911		$82,834 06

HOSPITAL

Amount of Fund, March 31, 1910	$2,490 20	
Interest accumulations, 1910	75 26	
Appropriation for 1910	975 00	
Amount of Fund, March 31, 1911		$3,540 46

METROPOLITAN PARK ASSESSMENT

Amount of Fund, March 31, 1910	7,827 14	
Interest accumulations, 1910	236 58	
Appropriation for 1910	1,012 00	
Amount of Fund, March 31, 1911		$9,075 72

PARK

Amount of Fund, March 31, 1910	$347,376 16	
Interest accumulations, 1910	10,499 44	
Appropriation for 1910	25,263 99	
Amount of Fund, March 31, 1911		$383,139 59

IMPROVED SEWERAGE

Amount of Fund, March 31, 1910	$74,260 77	
Interest accumulations, 1910	2,244 53	
Appropriation for 1910	8,778 00	
Amount of Fund, March 31, 1911		$85,283 30

SEPARATE SYSTEM OF DRAINAGE

Amount of Fund, March 31, 1910	$9,894 09	
Interest accumulations, 1910	299 05	
Appropriation for 1910	4,334 00	
Amount of Fund, March 31, 1911		$14,527 14

GENERAL

Amount of Fund, March 31, 1910	$680,230 83	
Interest accumulations, 1910	32,642 49	
Extra contributions	14,192 76	
Appropriation for 1910	118,682 88	
	$845,748 96	

EXPENDED.

For matured bonds	$58,000 00	
Amount of Fund, March 31, 1910		$787,748 96

COMMISSIONERS OF SINKING FUND

Amount of Funds, March 31, 1909		$1,604,850 79
RECEIVED.		
From City Treasurer, appropriations for 1910:		
Brookline Bridge	$333 33	
Cambridge Bridge	21,333 33	
Cambridge Bridge Special	616 00	
Commercial Avenue Bridge	666 67	
Harvard Bridge	8,800 00	
City of Cambridge, Acts of 1908	36,000 00	
Clay Lands	5,335 00	
Hospital	975 00	
Metropolitan Park Assessment	1,012 00	
Park	25,263 99	
Improved Sewerage	8,778 00	
Separate System of Drainage	4,334 00	
General	118,682 88	
		232,130 20
Interest accumulations		60,589 11
Extra contributions		14,192 76
Contributions from Boston Elevated Railway to be held as a special fund for Cambridge Bridge debt		257,500 00
		$2,169,262 86
For matured bonds:		
City Loan (for schoolhouses)	$36,000 00	
Sewer Loan	15,000 00	
Cemetery Loan	7,000 00	
		58,000 00
Amount of Funds, March 31, 1911		$2,111,262 86

WATER LOAN SINKING FUND

Amount of Fund, March 31, 1910	$1,873,389 93	
Interest accumulations, 1910	63,702 51	
Appropriation for 1910	120,624 50	
		$2,057,716 94
EXPENDED.		
For matured water loan bonds	508,000 00	
Amount of Fund, March 31, 1911		1,549,716 94

TITLES OF ACCOUNTS	Appropriations	Additional Appropriations and Transfers to	Transfers from	Total Amount Appropriated	Total Amount Expended	Balances Unexpended
GENERAL GOVERNMENT						
City Council Expenses	$5,000 00	$149 71	.....	$5,149 71	$5,149 71	.....
Clerk of Committees						
Salaries	4,086 00	.....	$11 86	4,074 14	4,053 00	$21 14
Expenses	285 00	11 86	.....	296 86	296 86	.....
Executive Department						
Salaries	5,500 00	236 02	.....	5,736 02	5,736 02	.....
Expenses	700 00	46 78	225 00	521 78	521 78	.....
Auditing Department						
Salaries	4,180 00	.....	169 79	4,010 21	4,001 19	9 02
Expenses	150 00	611 99	.....	761 99	761 99	.....
Treasurer and Collector						
Salaries	11,400 00	.....	.....	11,400 00	11,356 60	43 40
Expenses	7,500 00	.....	103 36	7,396 64	6,934 86	461 78
Assessors' Department						
Salaries	12,500 00	500 00	146 80	12,853 20	12,198 39	654 81
Expenses	1,500 00	146 80	.....	1,646 80	1,646 80	.....
Assessors' Plans	200 00	.....	.....	200 00	199 09	91
City Clerk's Department						
Salaries	7,000 00	100 00	.....	7,100 00	7,077 81	22 19
Expenses	2,000 00	51 99	100 00	1,951 99	1,951 99	.....
Classified Index	250 00	.....	.....	250 00	122 42	127 58
Renovating Public Records	.....	250 00	51 99	198 01	160 00	38 01
City Messenger's Department						
Salaries	1,700 00	49 00	.....	1,749 00	1,749 00	
Expenses	300 00	21 23	.....	321 23	321 23	
Postage and Stationery	1,700 00	33 13	.....	1,733 13	1,733 13	
Law Department						
Salaries	4,100 00	.....	.....	4,100 00	4,098 00	2 00
Expenses	700 00	.....	.....	700 00	700 00	
Elections and Registration						
City Clerk	10,300 00	.....	.....	10,300 00	10,259 66	40 34
Registrars of Voters	4,500 00	12 15	.....	4,512 15	4,512 15	
Polling Places	2,500 00	.....	114 03	2,385 97	2,373 27	12 70
Engineering Department						
Salaries	9,000 00	.....	.....	9,000 00	8,404 44	595 56
Expenses	700 00	.....	.....	700 00	667 55	32 45
Superintendent and Inspector of Buildings						
Salaries	6,380 00	.....	973 02	5,406 98	5,371 58	35 40
Expenses	950 00	11 33	.....	961 33	961 33	
Board of Appeal	50 00	.....	.....	50 00	15 00	35 00
Civil Service Labor Registration	350 00	.....	.....	350 00	313 20	36 80
Municipal Buildings						
Salaries	11,800 00	61 69	.....	11,861 69	11,861 69	
Expenses and Repairs	7,400 00	1,229 61	.....	8,629 61	8,629 61	
Repairs Third District Court Rooms	500 00	.....	227 73	272 27	272 27	
Administration of Sinking Funds	365 00	.....	.....	365 00	365 00	
Amounts carried forward	$125,546 00	$2,523 29	$2,123 58	$126,945 71	$124,776 62	$2,169 09

SUMMARY—APPROPRIATIONS AND EXPENDITURES, APRIL 1, 1911 (Continued)

TITLES OF ACCOUNTS	Appropriations	Additional Appropriations and Transfers to	Transfers from	Total Amount Appropriated	Total Amount Expended	Balances Unexpended
Amounts brought forward	$125,546 00	$3,523 29	$2,123 58	$126,945 71	$124,776 62	$2,169 09
PROTECTION OF LIFE AND PROPERTY						
Police Department						
Salaries	166,500 00	.....	.....	166,500 00	165,145 25	1,354 75
Expenses	6,300 00	.....	.....	6,300 00	6,298 24	1 76
Fire Department						
Salaries	111,000 00	.....	1,600 00	109,400 00	109,289 97	110 03
Expenses	20,000 00	1,615 03	.....	21,615 03	21,615 03	.....
Repairs on Engine 7	.....	1,600 00	.....	1,600 00	1,600 00	.....
"Dahill" Hoist	.....	1,700 00	15 03	1,684 97	1,674 80	10 17
Fire and Police Telegraph and Inspection of Wires						
Salaries	10,000 00	698 00	.....	10,698 00	10,698 00	.....
Expenses	3,500 00	41 30	.....	3,541 30	3,541 30	.....
Fire Alarm Signal Box	.....	450 00	.....	450 00	450 00	.....
Militia: Use of Rifle Range and Transportation						
Troop C, M.V.M.	.....	231 00	.....	231 00	231 00	.....
Headquarters, 8th Regiment	50 00	.....	.....	50 00	31 62	18 98
Company A, 8th Regiment	225 00	27 69	.....	252 69	224 92	27 77
Company C, 8th Regiment	225 00	.....	.....	225 00	169 38	55 62
Company E, 8th Regiment	225 00	.....	.....	225 00	207 50	17 50
Company 6, C.C.A.	225 00	.....	.....	225 00	225 00	.....
Armory, Troop C	.....	1,000 00	.....	1,000 00	847 49	152 51
Sealer of Weights and Measures						
Salaries	3,000 00	816 72	.....	3,816 72	3,816 72	.....
Expenses	700 00	.....	232 72	467 28	384 65	82 63
Forestry						
Moth and Beetle Extermination	6,000 00	1,000 00	.....	7,000 00	6,998 53	1 47
Shade Trees	4,000 00	100 00	.....	4,100 00	4,099 97	03
Removal of Dead Trees	3,000 00	.....	.....	3,000 00	2,998 26	1 74
Night Watchman at High School and Library Buildings	640 00	.....	41 30	598 70	537 50	61 20
HEALTH AND SANITATION						
Health Department						
Salaries	13,500 00	225 00	.....	13,725 00	13,724 20	80
General Expenses and Hospitals	40,000 00	.....	.....	40,000 00	38,640 03	1,359 97
Inspection of Milk and Vinegar	2,300 00	.....	.....	2,300 00	2,292 70	7 30
Modified Milk	1,200 00	.....	.....	1,200 00	1,171 21	28 79
Inspection of Animals	800 00	50 00	.....	850 00	843 23	6 77
Sanitation						
Sewers, Maintenance	19,000 00	.....	.....	19,000 00	18,566 12	433 88
Refuse Collection and Disposal						
House Offal						
Labor	30,000 00	.....	950 00	29,050 00	28,978 00	72 00
Expenses	8,500 00	1,650 00	.....	10,150 00	10,150 00	.....
Collection of Ashes	44,600 00	2,500 00	.....	47,100 00	47,099 28	72
Incinerator, Maintenance	4,300 00	.....	.....	4,300 00	4,299 86	14
Street Cleaning (including Snow Removal)	42,000 00	1,348 09	.....	43,348 09	43,348 09	.....

TITLES OF ACCOUNTS	Appropriations	Additional Appropriations and Transfers to	Transfers from	Total Amount Appropriated	Total Amount Expended	Balances Unexpended
Amounts brought forward.....	$667,336 00	$18,576 12	$4,962 63	$680,949 49	$674,973 87	$5,975 62
HIGHWAYS AND BRIDGES						
Salaries — Superintendent of Streets and Clerks.....	6,820 00	.....	.....	6,820 00	6,819 32	68
Maintenance and Repairs.....	69,500 00	3,146 20	.....	72,646 20	72,646 20	.....
Horses.....	5,000 00	.....	.....	5,000 00	5,000 00	.....
Crossings.....	2,500 00	.....	466 00	2,034 00	2,034 00	.....
Sidewalk Repairs.....	5,000 00	1,500 00	.....	6,500 00	6,499 91	09
Street Sprinkling.....	36,000 00	700 00	.....	36,700 00	36,699 38	62
Street Lighting						
Salaries.....	1,000 00	.....	.....	1,000 00	1,000 00	.....
Expenses.....	78,900 00	1,090 00	119 00	79,871 00	79,736 63	134 37
Street Department—Bridges.....	5,500 00	566 00	.....	6,066 00	6,065 77	23
Repairs on Sixth Street Bridge..	5,000 00	500 00	348 09	5,151 91	5,151 91	.....
Repairs on Mt. Auburn Bridge..	.....	250 00	.....	250 00	249 83	17
Boston and Cambridge Bridges						
Salaries and Labor.....	10,000 00	113 52	.....	10,113 52	10,113 52	.....
Expenses.....	7,600 00	.....	1,015 14	6,584 86	6,508 51	76 35
Repairing Western Ave. Bridge.	1,034 64	.....	.....	1,034 64	1,034 64	.....
Repairing River Street Bridge	3,300 00	.....	98 38	3,201 62	3,201 62	.....
Repairing Harvard Bridge.....	.....	350 00	.....	350 00	346 98	3 02
Charles River Dam Apportionment.....	.....	7,984 05	.....	7,984 05	7,984 05	.....
CHARITIES						
City Farm						
Labor.....	3,600 00	.....	100 00	3,500 00	3,499 04	96
Expenses.....	1,000 00	100 00	.....	1,100 00	1,100 00	.....
City Home						
Salaries.....	7,200 00	.....	96 00	7,104 00	7,102 97	1 03
Expenses.....	13,000 00	1,958 00	55 81	14,902 19	14,897 38	4 81
City Home Hospital						
Salaries.....	950 00	38 00	.....	988 00	988 00	.....
Expenses.....	650 00	55 81	.....	705 81	705 81	.....
Out-door Relief						
Salaries.....	3,900 00	.....	.....	3,900 00	3,887 95	12 05
Expenses.....	20,000 00	3,000 00	.....	23,000 00	22,996 45	3 55
City Physician.....	2,000 00	.....	.....	2,000 00	2,000 00	.....
SOLDIERS' BENEFITS	29,000 00	.....	.....	29,000 00	27,714 26	1,285 74
EDUCATION						
School Committee Expenditures.	‡524,687 95	10,822 26	345 80	‡524,687 95	.....	.....
Salaries.....	.....	.....	.....	10,476 46	449,007 01	143 59
Other Expenses.....	.....	.....	.....	.....	85,923 81	.....
LIBRARIES AND READING ROOMS						
Central Library						
Salaries.....	12,650 00	.....	.....	12,650 00	12,649 79	21
General Expenses.....	*9,850 00	.....	.....	*9,850 00	9,849 76	24
East Cambridge Branch						
Salaries.....	1,000 00	.....	.....	1,000 00	999 96	04
Expenses.....	1,600 00	.....	.....	1,600 00	1,599 63	37
North Cambridge Branch						
Salaries.....	1,500 00	.....	.....	1,500 00	1,499 85	15
Expenses.....	2,000 00	.....	.....	2,000 00	1,999 77	23
	$1,539,078 59	$50,749 96	$7,606 85	$1,582,221 70	$1,574,577 58	$7,644 12

SUMMARY—APPROPRIATIONS AND EXPENDITURES, APRIL 1, 1911 (Continued)

TITLES OF ACCOUNTS	Appropriations	Additional Appropriations and Transfers to	Transfers from	Total Amount Appropriated	Total Amount Expended	Balances Unexpended
Amounts brought forward.....	$1,539,078 59	$50,749 96	$7,606 85	$1,582,221 70	$1,574,577 58	$7,644 12
RECREATION						
Park Maintenance						
Salaries.....	2,300 00	.....	.....	2,300 00	2,300 00	.....
General Account.....	1,500 00	.....	532 00	968 00	966 91	1 09
Cambridge Field and Shelter..	6,000 00	19 65	.....	6,019 65	6,019 39	26
Commons, Squares and Public Grounds.....	4,100 00	54 00	.....	4,154 00	4,153 93	07
Longfellow Memorial Park....	250 00	.....	.....	250 00	250 00	.....
Rindge Field.....	1,800 00	.....	.....	1,800 00	1,799 97	03
River Parkway.....	7,000 00	.....	73 65	6,926 35	6,926 35	.....
Sand Gardens.....	200 00	.....	.....	200 00	199 56	44
Mill Pond Land.....	150 00	.....	.....	150 00	150 00	
Bath House, Captain's Island..	1,800 00	.....	.....	1,800 00	1,799 53	47
Playgrounds Commission						
Salaries.....	.....	1,000 00	850 00	150 00	135 00	15 00
Expenses.....	.....	1,350 00	.....	1,350 00	1,341 48	8 52
Celebrations						
Independence Day.....	800 00	.....	.....	800 00	782 37	17 63
Labor Day.....	.....	300 00	.....	300 00	299 90	10
Memorial Day.....	1,200 00	.....	.....	1,200 00	1,200 00	.....
50th Anniversary 1st Volunteers	.....	1,000 00	.....	1,000 00	1,000 00	.....
CEMETERIES						
Salaries and Labor.....	15,000 00	200 00	.....	15,200 00	15,182 63	17 37
General Expenses.....	2,000 00	20 80	200 00	1,820 80	1,820 80	.....
Grading.....	1,000 00	.....	.....	1,000 00	999 25	75
INTEREST.....	304,541 25	.....	.....	304,541 25	302,123 19	2,418 06
SINKING FUNDS.....	232,130 20	13,664 76	.....	245,794 96	245,794 96	.....
UNCLASSIFIED						
Reserve Fund.....	40,000 00	.....	38,907 72	1,092 28	.....	1,092 28
Damages to Persons and Personal Property.....	2,000 00	2,400 00	.....	4,400 00	4,388 73	11 27
Indemnifying Police Officer.....	.....	740 50	.....	740 50	740 50	.....
New Flag Staff Socket.....	500 00	.....	.....	500 00	500 00	.....
Abatement "Smoke Nuisance Tax"	.....	532 16	.....	532 16	532 16	.....
Taxes for Land on Windsor Street	.....	79 61	.....	79 61	79 61	.....
Greater Boston Real Estate Exposition.....	.....	200 00	.....	200 00	200 00	.....
Total for Revenue Accounts.....	$2,163,350 04	$72,311 44	$48,170 22	$2,187,491 26	$2,176,263 80	$11,227 46

SUMMARY—APPROPRIATIONS AND EXPENDITURES, APRIL 1, 1911 (Concluded)

TITLES OF ACCOUNTS	Appropriations	Additional Appropriations and Transfers to	Transfers from	Total Amount Appropriated	Total Amount Expended	Balances Unexpended
MUNICIPAL INDUSTRIES						
Water Works						
Salaries of Superintendent, Registrar, Inspectors and Clerks..	$12,020 00	$276 67	.....	$12,296 67	$12,296 67	.....
General Expenses and Reservoirs	40,000 00	7,000 00	.....	47,000 00	46,996 58	3 42
Grading for Playgrounds.....	.....	650 00	.....	650 00	106 00	544 00
Pumping						
Salaries and Labor.....	9,100 00	.....	.....	9,100 00	9,072 56	27 44
Expenses.....	8,000 00	6,000 00	.....	14,000 00	11,574 16	2,425 84
Repairs to Pumping Station..	1,000 00	400 00	.....	1,400 00	1,335 44	64 56
Meters.....	2,000 00	2,830 00	.....	4,830 00	4,824 02	5 98
Services of City Treasurer and City Solicitor.....	2,500 00	.....	.....	2,500 00	2,500 00	.....
Ice for Fountains.....	850 00	.....	.....	850 00	712 65	137 35
Interest.....	137,582 75	.....	.....	137,582 75	137,582 75	.....
Sinking Fund.....	120,624 50	.....	.....	120,624 50	120,624 50	.....
Serial Loan.....	12,500 00	.....	.....	12,500 00	12,500 00	.....
Abatements and Refunds.....	3,500 00	.....	.....	3,500 00	3,180 19	319 81
Study of Water Supply.....	.....	5,000 00	.....	5,000 00	696 07	4,303 93
Total for Water Revenue Accounts	$349,677 25	$22,156 67	.....	$371,833 92	$364,001 59	$7,832 33

SUMMARY—APPROPRIATIONS AND EXPENDITURES, APRIL 1, 1911 (Continued)

TITLES OF ACCOUNTS	Estimated Receipts	Receipts from Loans	Other Special Receipts	Amounts Re-appropriated	New Appropriations	Total Appropriations	Expended to Date	Balances Unexpended
SPECIAL FUNDS AND LOAN ACCOUNTS								
GENERAL GOVERNMENT								
Fireproof Vaults, City Hall.....	$8,000 00	$8,000 00	.....	.....	$8,000 00	$8,000 00	$4,763 90	$3,236 10
Remodelling Central Sq. Bldg.	36,000 00	.....	.....	.....	36,000 00	36,000 00	.....	36,000 00
HEALTH AND SANITATION								
Land for Hospital.....	.....	.....	.....	$5,112 20	.....	5,112 20	.....	5,112 20
Hospital	95,000 00	95,000 00	.....	95,000 00	25,000 00	120,000 00	26,013 75	93,986 25
Sewers								
Construction General	25,000 00	25,000 00	$3,409 11	1,137 48	25,000 00	26,137 48	16,593 60	9,543 88
Subway Construction	.....	.....	.....	8,000 00	.....	8,000 00	4,386 67	3,613 33
Gate Chambers	.....	.....	.....	161 73	.....	161 73	158 65	3 08
Separate System of Drainage...	25,000 00	25,000 00	.....	5,018 75	20,000 00	25,018 75	24,776 51	242 24
Subway Construction	.....	.....	.....	7,000 00	.....	7,000 00	3,346 47	3,653 53
HIGHWAYS AND BRIDGES								
Street Construction	.....	.....	.....	.....	.....	.....	.....	.....
Land Damages	.....	10,000 00	.....	5,299 09	10,000 00	15,299 09	15,230 02	69 07
Sundry Streets	.....	.....	.....	.....	.....	.....	.....	.....
Hadley Street..	.....	.....	.....	1,271 52	.....	1,271 12	856 15	414 97
Otis Street Construction	.....	.....	.....	219 90	.....	219 90	181 88	38 02
Ames Street, between Amherst and Main Streets.....	12,000 00	12,000 00	.....	.....	12,000 00	12,000 00	11,998 92	1 08
Rebuilding								
Albany, Erie and Charles Sts.	27,000 00	27,000 00	.....	.....	27,000 00	27,000 00	25,849 62	1,150 38
Massachusetts Ave., Prospect St. and Putnam Ave.....	50,800 00	50,800 00	.....	.....	50,800 00	50,800 00	45,324 53	5,475 47
Edgestones and Sidewalks.....	16,900 00	15,000 00	10,842 26	8,812 44	17,200 00	26,012 44	26,012 23	21
Bridges								
Cambridge Bridge	30,000 00	20,000 00	.....	2,185 06	30,000 00	32,185 06	28,495 53	3,689 53
Cambridge Bridge Approach...	.....	.....	.....	565 54	.....	565 54	120 00	445 54
Brookline Bridge Approach	.....	.....	.....	.....	.....	.....	.....	.....
Commercial Avenue Bridge	.....	.....	.....	2,107 50	.....	2,107 50	.....	2,107 50
EDUCATION								
Thorndike Schoolhouse, Land and Building	120,000 00	120,000 00	.....	89,943 00	30,000 00	119,943 00	7,379 45	112,563 55
Webster Schoolhouse Addition, Land and Building	.....	.....	8,000 00	65,394 29	8,345 80	73,740 09	73,740 09	.....
Webster Schoolhouse, Reconstruction, etc.	.....	.....	.....	.....	.....	.....	.....	.....
New Wing, High and Latin Schools	5,000 00	5,000 00	.....	.....	5,000 00	5,000 00	.....	5,000 00
	$450,700 00	$412,800 00	$22,251 37	$297,228 10	$304,345 80	$601,573 90	$315,227 97	$286,345 93

SUMMARY—APPROPRIATIONS AND EXPENDITURES, April 1, 1911 (Concluded)

TITLES OF ACCOUNTS	Estimated Receipts	Receipts from Loans	Other Special Receipts	Amounts Re-appropriated	New Appropriations	Total Appropriations	Expend. to Date	Balances Unexpended
RECREATION	$450,700 00	$412,800 00	$22,251 37	$297,228 10	$304,345 80	$601,573 90	$315,227 97	$286,345 93
Park Department								
Construction and Lands	15,000 00	15,000 00	.....	17 97	15,000 00	15,017 97	1,783 65	13,234 32
Completion of Rindge Field	.....	.....	.....	592 23	.....	592 23	585 50	6 73
Shower Baths and Heating Apparatus, Rindge Field Shelter	2,000 00	2,000 00	.....	.....	2,000 00	2,000 00	1,485 73	514 27
Land for Playgrounds	50,000 00	50,000 00	314 79	.....	50,000 00	50,000 00	48,539 03	1,460 97
MUNICIPAL INDUSTRIES								
Water Department								
Construction General	.....	6,500 00	1,207 99	3,664 45	6,500 00	10,164 45	6,063 26	4,101 19
Subway Construction	.....	.....	17,789 42	9,812 17	17,000 00	26,812 17	21,661 24	5,150 93
Hobbs' Brook Conduit	.....	10,000 00	.....	5,561 60	10,000 00	15,561 60	14,926 21	635 39
Hobbs' Brook Conduit Extension	.....	.....	.....	.....	.....	.....	.....	.....
UNCLASSIFIED								
Sale of Public Land	.....	.....	20,432 50	.....	.....	.....	.....	.....
Premium Account	.....	.....	528 00	.....	.....	.....	.....	.....
Totals for Special Fund Accounts	$517,700 00	$496,300 00	$62,524 07	$316,876 52	$404,845 80	$721,722 32	$410,272 59	$311,449 73

SCHEDULE B

Nos. I to VII

ASSETS AND LIABILITIES

SCHEDULE B-1

March 31, 1911

ASSETS		LIABILITIES	
Current Assets (B-II)	$511,336 63	Current Liabilities (B-II)	$20,298 61
Contingent Assets (BIII)	90,800 85	Contingent Liabilities (B-III)	5,045 43
Trust Funds and Special Deposits (B-IV)	111,737 23	Trust Liabilities (B-IV)	111,737 23
Sinking Funds (B-V)	3,680,272 35	Bonded Debt (B-V)	11,432,650 00
Total Available Assets	$4,394,147 06	Total Liabilities	$11,569,731 27
Fixed Assets (Unavailable B-VI)	13,374,584 93	General Deficit and Surplus Account (B-VII)	6,199.000 72
Grand Total of Assets	$17,768,731 99	Grand Total of Liabilities and Surplus	$17,768,731 99

SCHEDULE B-II.

CURRENT ASSETS

CASH:		
Cash in the Treasury available for general purposes	$69,046 57	
Cash in the Treasury available for special assessments	275,449 73	
		$344,496 30
GOOD ACCOUNTS RECEIVABLE:		
Delinquent Property Taxes	$141,062 21	
Other good accounts:		
Moth Assessments	166 95	
Sewer Assessments	522 93	
Sidewalk Assessments	2,839 16	
Street Watering Assessments	2,266 66	
Water Department Rates, etc	7,780 10	
Miscellaneous Bills	12,202 32	
Total Good Accounts Receivable		$166,840 33
Total Current Assets		$511,336 63

CURRENT LIABILITIES

(Floating Debts)

1. OUTSTANDING ACCOUNTS DUE AND UNPAID:		
Of the current year		
Land damages		
Of previous years		
Tax sale surplus	$461 07	
2. OUTSTANDING ACCOUNTS NOT DUE:		
Other Accounts, Miscellaneous Bills	$19,837 54	
Total Current Liabilities		$20,298 61
Surplus of Current Assets (B-VII)		$491,038 02

SCHEDULE B-III

CONTINGENT ASSETS

DOUBTFUL ACCOUNTS RECEIVABLE:		
Delinquent Personal Property and Poll Taxes, viz.:		
1907	$25,197 13	
1908	25,755 69	
1909	33,467 70	
Liens	2,110 40	
		$86,530 92
Other doubtful accounts, viz.:		
Miscellaneous Bills		4,269 93
Total Contingent Assets		$90,800 85

CONTINGENT LIABILITIES

RETENTION FUND ACCOUNT:		
Percentage of Contractors' payments retained, viz.:		
General Fireproofing Co.	$1,754 00	
Gorman, Leonard Coal Co.	2,234 73	
Higgins & Co.	140 25	
J. Leo McDonald	198 00	
H. L. Rose	188 61	
Smith, Alden & Co.	529 84	
		$5,045 43
Surplus of Contingent Assets (B-VII)		$95,846 28

SCHEDULE B-IV

TRUST FUND ASSETS

CASH IN TRUST FUNDS:		
Special Deposits, etc., viz.:		
Bridge Charitable Fund	$2,700 30	
Sarah E. Russell Fund	814 41	
Wm. E Saunders Fund	465 78	
Citizens' Subscription Fund	1 80	
Cummings Legacy	7 65	
Fay Legacy	15 07	
James A. Woolson Fund	23 63	
Edward H. Whorf Fund	349 69	
Total cash in Trust Funds		$4,378 33
INVESTMENT OF TRUST FUNDS:		
Stocks and Bonds in various Funds, viz.:		
Cemetery Fund	$83,858 90	
Cummings Legacy	2,000 00	
Fay Legacy	1,000 00	
Citizens' Subscription Fund	5,500 00	
Wm. E. Saunders Fund	7,000 00	
James A. Woolson Fund	5,000 00	
Edward H. Whorf Fund	3,000 00	
		107,338 90
Total Assets in Trust Funds		$111,737 23

LIABILITIES

Other Trust Runds and Special Funds, viz.:		
Cemetery Fund Account	$83,858 90	
Bridge Charitable Fund	2,700 30	
Citizens' Subscription Fund	5,501 80	
Cummings Legacy	2,007 65	
Fay Legacy	1,015 07	
Sarah E. Russell Fund	814 41	
Wm. E. Saunders Fund	7,465 78	
James A. Woolson Fund	5,023 63	
Edward H. Whorf Fund	3,349 69	
Total Liabilities		$111,737 23

SCHEDULE B-V.

SINKING FUND ASSETS.

INVESTMENT OF SINKING FUNDS:

Bonds and Other Securities, viz.: (Per list in report of Sinking Funds Commissioners)	$3,680,272 35

BONDED DEBTS OF THE CITY.

1. GENERAL BONDS:		
a. For General Municipal Purposes. Funded City Debt	$8,185,050 00	
b. For Municipal Enterprises. Water Works	3,247,600 00	
2. SPECIAL ASSESSMENT BONDS:		
Total of Bonded Debts		$11,432,650 00
Excess of Debts (Net Bonded Debt. See B-VII.)		$7,752,377 65

SCHEDULE B-VI.

FIXED ASSETS.

LAND, BUILDINGS AND EQUIPMENT:		
Law Department, Equipment		$208 00
City Buildings:		
Land	$135,700 00	
Buildings	335,300 00	
Equipment	41,903 00	
		512,903 00
Police Department:		
Equipment		4,655 74
Fire Department:		
Land	$49,600 00	
Buildings	158,500 00	
Equipment	90,899 00	
		298,999 00
Fire and Police Telegraph, Equipment		40,090 00
Health Department:		
Land	$14,600 00	
Buildings	15,900 00	
Equipment	5,221 25	
		35,721 25
Inspection of Milk and Vinegar, Equipment		1,369 86
Cemeteries:		
Land	$92,000 00	
Buildings	6,000 00	
Equipment	3,500 00	
		101,500 00
Sealer of Weights and Measures, Equipment		2,143 25
City Home:		
Land	$56,700 00	
Buildings	25,000 00	
Equipment	18,920 00	
		100,620 00
Street Department (Stables, etc):		
Land	$122,900 00	
Buildings	61,000 00	
Equipment	82,822 55	
		266,722 55
Engineering Department, Equipment		118,768 00

Schedule B-VI—Concluded.

Sewer Department (Stables, etc.):		
Land	$5,900 00	
Buildings	5,600 00	
Equipment	5,510 00	
		$17,010 00
Street Lighting, Equipment		4,935 00
Bridge Department, Equipment		2,390 00
Water Works:		
Land, Dams, etc.	$1,331,510 31	
Buildings	100,810 40	
Equipment	2,224,979 16	
		3,657,299 87
Schools:		
Land	$385,000 00	
Buildings	1,780,700 00	
Equipment	193,232 73	
		2,358,932 73
Library:		
Land	$85,000 00	
Buildings	145,000 00	
Equipment	89,575 00	
		319,575 00
Parks:		
Land	$5,381,441 68	
Buildings	122,100 00	
Equipment	3,600 00	
		5,507,141 68
Other land not included in any of the Department Schedules		23,600 00
Total Fixed Assets (See B-VII) ...		$13,374,584 93

SCHEDULE B-VII

GENERAL DEFICIT AND SURPLUS ACCOUNT.

DEFICITS

*Deficit of Current Assets (B-II), if any		
†Deficit of Contingent Assets (B-III), if any		
†Deficit of Trust Funds Assets (B-IV), if any		
†Deficit of Sinking Funds Assets (B-V), viz.:		
Net Bonded Debt	$7,752,377 65	
Total of all Deficits		$7,752,377 65

SURPLUS

*Surplus of Current Assets (B-II), if any	$491,038 02	
†Surplus of Contingent Assets (B-III), if any ...	85,755 42	
†Surplus of Trust Funds (B-IV), if any		
†Surplus of Sinking Funds (B-V), if any		
Total Surplus, excluding Fixed Assets‡		$576,793 44
Excess of Deficits, viz.:		
Total Net Debts of the City		$7,175,584 21

BALANCE

Total of Fixed Assets:		
Land, Buildings, Equipments (B-VI)	$13,374,584 93	
Deduct Total Net Debts of the City, as above	7,175,584 21	
Balance of this Account, General Surplus (B-1)..		$6,199,000 72

*Balance of Schedule B-II will appear under *one* or the *other* of these heads.
†Balance of other schedules, B-III, etc., will appear in like manner.
‡Fixed Assets are set up by themselves under "Balance." (See above.)

SCHEDULE B

No. VIII

CITY FUNDED DEBT

AND

MISCELLANEOUS TABLES

CITY FUNDED DEBT.

There have been additions to the City Funded Debt during the year as follows:

Park Loan, registered bonds payable in forty years, at an annual interest of three and one-half per cent.	
For the purpose of paying for property purchased, taken or held for a public park or esplanade as authorized by Chapter 341 of the Acts of 1892, Chapter 337, Acts of 1893, and Acts in amendment thereof and in addition thereto, and also for defraying the expense of construction of such park or esplanade and for any purpose incident to the protection, enlargement or advancement of a public park or esplanade in said City of Cambridge, as authorized by Chapter 221 of the Acts of the year 1899	$17,000 00
Schoolhouse Loan, registered bonds payable in twenty years, at an annual interest of four per cent.	
For the purpose of acquiring land for the new Thorndike Schoolhouse, and for constructing the buildings, and for paying all expenses incident thereto as authorized by Chapter 27 of the Revised Laws	120,000 00
For the purpose of the construction of a new wing to connect the English High and Latin Schools, as authorized by Chapter 27 of the Revised Laws	5,000 00
Sewer Loans, registered bonds payable in thirty years, at an annual interest of three and one-half and four per cent.	
For the purpose of constructing sewers, as authorized by Chapter 383 of the Acts of 1903	25,000 00
For the purpose of constructing sewers, as authorized by Chapter 27 of the Revsed Laws	25,000 00
Street Loan, registered bonds payable in twenty years, at an annual interest of three and one-half and four per cent.	
For the purpose of the "construction of a permanent character" of accepted highways, streets and ways, under authority conferred by Chapter 482 of the Acts of 1910. Ames, Albany, Erie and Charles Streets	54,000 00
Street Loan, registered bonds payable in ten years, at an annual interest of three and one-half per cent.	
For the purpose of construction of certain new streets, and for the rebuilding of sundry streets, as authorized by Section 11 of Chapter 27 of the Revised Laws. Construction of Massachusetts Avenue, Putnam Avenue, and Prospect Street, and Land Damage	60,800 00
Hospital Loan, registered bonds payable in twenty years, at an annual interest of four per cent.	
For the purpose of defraying the cost of the erection and establishment of one or more hospitals for the reception of persons having a disease dangerous to the public health, and of constructing, equipping and maintaining such hosiptals, and paying all expenses incident thereto, as authorized by Chapter 99 of the Legislative Acts of 1895	95,000 00
Cambridge Bridge Loan, registered bonds payable in forty years, at an annual interest of four per cent.	

For the purpose of the construction of the "Cambridge Bridge" and its approaches, and for other purposes, as authorized under the provisions of Chapter 467 of the Legislative Acts of 1898		20,000 00
City Loan, registered bonds payable in ten years at an annual interest of four per cent.		
For the purpose of constructing Fire Proof Vaults in the City Hall		8,000 00
Playgrounds Loan, registered bonds payable in thirty years at an annual interest of four per cent.		
For the purpose of acquiring land for Public Playgrounds, as authorized by Chapter 27 of the Revised Laws and amendments thereto		50,000 00
		$479,800 00
The following matured bonds have been paid:		
Cambridge Cemetery Loan, registered bonds issued November 1, 1900, at an annual interest of three and one-half per cent.	$7,000 00	
Schoolhouse Loan, registered bonds issued November 1, 1900, at an annual interest of three and one-half per cent.	36,000 00	
Sewer Loan, registered bonds issued May 1, 1890, at an annual interest of four per cent.	15,000 00	
		58,000 00
Net increase		$421,800 00

	April 1, 1910	April 1, 1911	Increase	Decrease
Funded City Debt	$7,763,250 00	$8,185,050 00	$421,800 00	
Sinking Funds	1,604,850 79	2,111,262 86	506,412 09	
Net Funded City Debt	$6,158,399 21	$6,074,787 14		$83,612 07

The following is a statement of the total funded debt of the City, with the rates of interest thereon:—

HARVARD BRIDGE LOAN.

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
Oct. 1, 1887 R.	4 per cent.—30 yrs.	Oct. 1, 1917	$10,000 00	
July 1, 1888 C.	4 " —30 "	July 1, 1918	100,000 00	
Sept. 1, 1888 C.	4 " —30 "	Sept. 1, 1918	100,000 00	
Mar. 1, 1889 C.	4 " —30 "	Mar. 1, 1919	115,000 00	
Nov. 1, 1890 R.	4 " —30 "	Nov. 1, 1920	5,000 00	
July 1, 1891 R. & C.	4 " —30 "	July 1, 1921	60,000 00	
Aug. 1, 1893 C.	4 " —30 "	Aug. 1, 1923	10,000 00	$400,000 00
Amount carried forward				$400,000 00

Amount brought forward..... $400,000 00

CAMBRIDGE BRIDGE LOAN.

July 1, 1899 R.....	3½ per cent.—40 yrs.	July 1, 1939.. ...	$50,000 00		
July 2, 1900 R.....	3½ " —40 "	July 2, 1940.. ...	100,000 00		
Feb. 1, 1901 R.....	3 " —40 "	Feb. 1, 1941.. ...	100,000 00		
Nov. 1, 1901 R.....	3½ " —40 "	Nov. 1, 1941.. ...	100,000 00		
July 1, 1902 R. & C.	3½ " —40 "	July 1, 1942.. ...	100,000 00		
Jan. 1, 1903 R.....	3½ " —40 "	Jan. 1, 1943.. ...	50,000 00		
Apr. 1, 1903 R.....	3½ " —40 "	Apr. 1, 1943.. ...	50,000 00		
Aug. 1, 1903 C.....	3½ " —40 "	Aug. 1, 1943.. ...	50,000 00		
Jan. 1, 1904 R.....	3½ " —40 "	Jan. 1, 1944.. ...	100,000 00		
May 1, 1904 R. & C.	3½ " —40 "	May 1, 1944.. ...	200,000 00		
Aug. 1, 1904 R.....	3½ " —40 "	Aug. 1, 1944.. ...	100,000 00		
Sept. 1, 1904 R.....	3½ " —40 "	Sept. 1, 1944.. ...	50,000 00		
May 1, 1905 R.....	3½ " —40 "	May 1, 1945.. ...	150,000 00		
Dec. 1, 1905 R.....	3½ " —40 "	Dec. 1, 1945.. ...	100,000 00		
Aug. 1, 1906 R.....	4 " —40 "	Aug. 1, 1946.. ...	150,000 00		
Jan. 1, 1907 R.....	4 " —40 "	Jan. 1, 1947.. ...	50,000 00		
July 1, 1907 C.....	4 " —40 "	July 1, 1947.. ...	40,000 00		
Oct. 1, 1907 C.....	4 " —40 "	Oct. 1, 1947.. ...	15,000 00		
Aug. 1, 1908 R.....	4 " —40 "	Aug. 1, 1948.. ...	45,000 00		
July 1, 1910 R.....	4 " —40 "	July 1, 1950.. ...	20,000 00		$1,620,000 00

BROOKLINE BRIDGE LOAN.

Jan. 1, 1906	3½ per cent.—40 yrs.	Jan. 1, 1946.. ...	$20,000 00	
Sept. 1, 1906	4 " —40 "	Sept. 1, 1946.. ...	5,000 00	$25,000 00

COMMERCIAL AVENUE BRIDGE.

Aug. 1, 1906	4 per cent.—40 yrs.	Aug. 1, 1946.. ...		$50,000 00

BUILDING LOAN.

Aug. 1, 1894 R. & C.	4 per cent.—20 yrs.	Aug. 1, 1914.. ...	$37,000 00	
Oct. 1, 1895 R.....	4 " —20 "	Oct. 1, 1915.. ...	25,000 00	
Oct. 1, 1896 R.....	4 " —20 "	Oct. 1, 1916.. ...	60,000 00	
Apr. 1, 1903 R.....	3½ " —20 "	Apr. 1, 1923.. ...	3,000 00	
Apr. 1, 1904 C.....	3½ " —20 "	Apr. 1, 1924.. ...	25,000 00	
May 1, 1904 R.....	3½ " —20 "	May 1, 1924.. ...	5,000 00	
Sept. 1, 1907 R.....	4 " —20 "	Sept. 1, 1927.. ...	30,000 00	$185,000 00

CAMBRIDGE BRIDGE SPECIAL LOAN.

(Charles River Dam.)

May 1, 1904 R.....	3½ per cent.—30 yrs.	May 1, 1934.. ...		$28,000 00

CITY LOAN.

Nov. 1, 1901 R.....	3½ per cent.—10 yrs.	Nov. 1, 1911.. ...	$6,000 00	
July 1, 1902 R.....	3½ " —10 "	July 1, 1912.. ...	14,000 00	
Nov. 1, 1902 R.....	3½ " —10 "	Nov. 1, 1912.. ...	20,000 00	
July 1, 1910, R.....	4 " —10 "	July 1, 1920.....	8,000 00	$48,000 00

CITY OF CAMBRIDGE, ACTS OF 1908—LOAN.

May 1, 1908 R. & C.	4 per cent.—10 yrs.	May 1, 1918.. ...		$400,000 00

Amount carried forward..... $2,756,000 00

CITY FUNDED DEBT—Continued.

Amount brought forward $2,756,000 00

CLAY LAND LOAN.

July 1, 1896 R.....	4 per cent.—15 yrs.	July 1, 1911.. ...	$50,000 00		
Nov. 1, 1897 R.....	3½ " —15 "	Nov. 1, 1912.. ...	20,000 00		
Aug. 1, 1898 R.....	3½ " —15 "	Aug. 1, 1913.. ...	10,000 00		
July 1, 1899 R.....	3½ " —15 "	July 1, 1914.. ...	17,000 00		$97,000 00

HOSPITAL LOAN.

July 1, 1902 R.....	3½ per cent.—20 yrs.	July 1, 1922.. ...	$6,000 00		
Aug. 1, 1908 R.....	4 " —20 "	Aug. 1, 1928.. ...	20,000 00		
July 1, 1910, C.....	4 " —20 "	July 1, 1930.....	95,000 00		$121,000 00

METROPOLITAN PARK ASSESSMENT LOAN.

Aug. 1, 1902 R.....	3½ per cent.—30 yrs.	Aug. 1, 1932.. ...			$46,000 00

PARK LOAN.

Feb. 1, 1894 R.&C.	4 per cent.—30 yrs.	Feb. 1, 1924.. ...	$360,000 00		
Aug. 1, 1895 R.....	4 " —40 "	Aug. 1, 1935.. ...	100,000 00		
Feb. 1, 1896 R.....	4 " —40 "	Feb. 1, 1936.. ...	100,000 00		
Aug. 1, 1896 R.....	4 " —30 "	Aug. 1, 1926.. ...	100,000 00		
Oct. 1, 1896 R.....	4 " —30 "	Oct. 1, 1926.. ...	40,000 00		
Sept. 1, 1897 R.....	3½ " —40 "	Sept. 1, 1937.. ...	100,000 00		
Nov. 1, 1897 R.....	3½ " —40 "	Nov. 1, 1937.. ...	50,000 00		
June 1, 1898 R.....	3½ " —40 "	June 1, 1938.. ...	50,000 00		
Aug. 1, 1898 R.....	3½ " —40 "	Aug. 1, 1938.. ...	100,000 00		
Aug. 1, 1899 R.....	3½ " —40 "	Aug. 1, 1939.. ...	100,000 00		
July 2, 1900 R.....	3½ " —40 "	July 2, 1940.. ...	50,000 00		
Nov. 1, 1900 R.....	3½ " —40 "	Nov. 1, 1940.. ...	50,000 00		
Nov. 1, 1901 R.....	3½ " —40 "	Nov. 1, 1941.. ...	100,000 00		
July 1, 1902 R.....	3½ " —40 "	July 1, 1942.. ...	48,000 00		
Apr. 1, 1903 R.....	3½ " —40 "	Apr. 1, 1943.. ...	50,000 00		
Sept. 1, 1904 R.....	3½ " —40 "	Sept. 1, 1944.. ...	25,000 00		
Nov. 1, 1904 R.....	3½ " —40 "	Nov. 1, 1944.. ...	6,000 00		
Apr. 1, 1905 R.....	3½ " —40 "	Apr. 1, 1945.. ...	5,000 00		
May 1, 1905 R.....	3½ " —40 "	May 1, 1945.. ...	45,000 00		
Aug. 1, 1905 R.....	3½ " —40 "	Aug. 1, 1945.. ...	5,000 00		
Sept. 1, 1906 R.....	4 " —40 "	Sept. 1, 1946.. ...	25,000 00		
Oct. 1, 1907 R.....	4 " —40 "	Oct. 1, 1947.. ...	10,000 00		
Aug. 1, 1908 R.....	4 " —40 "	Aug. 1, 1948.. ...	30,000 00		
Nov. 1, 1908 R.....	4 " —40 "	Nov. 1, 1948.. ...	12,000 00		
Jan. 1, 1910 R.....	3½ " —40 "	Jan. 1, 1950.....	8,800 00		
Mar. 1, 1911, R.....	3½ " —40 "	Mar. 1, 1951.....	17,000 00		$1,586,800 00

PUBLIC LIBRARY LOAN.

Nov. 1, 1901 R.....	3½ per cent.—20 yrs.	Nov. 1, 1921.. ...			$27,000 00

Amount carried forward..... $4,633,800 00

CITY FUNDED DEBT—Continued.

Amount brought forward..... $4,633,800 00

SCHOOLHOUSE LOAN.

Aug. 1, 1894	R. & C.	4	per cent.—20 yrs.	Aug. 1, 1914.. ...	$81,000 00	
Oct. 1, 1895	R.....	4	" —20 "	Oct. 1, 1915.. ...	35,000 00	
July 1, 1896	R.....	4	" —20 "	July 1, 1916.. ...	10,000 00	
Oct. 1, 1896	R.....	4	" —20 "	Oct. 1, 1916.. ...	33,000 00	
Oct. 1, 1896	R.....	4	" —20 "	Oct. 1, 1916.. ...	6,000 00	
July 1, 1897	R.....	3½	" —20 "	July 1, 1917.. ...	100,000 00	
May 2, 1898	R.....	3½	" —20 "	May 2, 1918.. ...	100,000 00	
June 1, 1898	R.....	3½	" —20 "	June 1, 1918.. ...	50,000 00	
Aug. 1, 1898	R.....	3½	" —20 "	Aug. 1, 1918.. ...	142,000 00	
July 1, 1899	R.....	3½	" —20 "	July 1, 1919.. ...	42,000 00	
Nov. 1, 1899	R.....	3½	" —20 "	Nov. 1, 1919.. ...	13,000 00	
July 1, 1901	R.....	3½	" —20 "	July 1, 1921.. ...	76,000 00	
Nov. 1, 1901	R.....	3½	" —10 "	Nov. 1, 1911.. ...	30,000 00	
July 1, 1902	R.....	3½	" —20 "	July 1, 1922.. ...	86,500 00	
Oct. 1, 1902	R.....	3½	" —20 "	Oct. 1, 1922.. ...	11,000 00	
Oct. 1, 1903	R.....	3½	" —20 "	Oct. 1, 1923.. ...	80,000 00	
Apr. 1, 1904	C.....	3½	" —20 "	Apr. 1, 1924.. ...	80,000 00	
Nov. 1, 1904	R.....	3½	" —20 "	Nov. 1, 1924.. ...	20,000 00	
Nov. 1, 1904	R.....	3½	" —20 "	Nov. 1, 1924.. ...	6,000 00	
May 1, 1905	R.....	3½	" —20 "	May 1, 1925.. ...	20,950 00	
Aug. 1, 1905	R.....	3½	" —20 "	Aug. 1, 1925.. ...	20,000 00	
Aug. 1, 1906	R.....	4	" —20 "	Aug. 1, 1926.. ...	33,000 00	
Nov. 1, 1906	R.....	4	" —20 "	Nov. 1, 1926.. ...	14,000 00	
Dec. 1, 1908	R.....	3½	" —20 "	Dec. 1, 1928.. ...	40,000 00	
Jan. 1, 1910	R. & C.	3½	" —20 "	Jan. 1, 1930.....	93,500 00	
July 1, 1910,	R.....	4	" —20 "	July 1, 1930.....	120,000 00	
Mar. 1, 1911,	R.....	3½	" —20 "	Mar. 1, 1931.....	5,000 00	$1,347,950 00

SEWER LOAN.

July 1, 1891	C.....	4	" —20 "	July 1, 1911.. ...	$15,000 00	
Aug. 1, 1894	R. & C.	4	" —30 "	Aug. 1, 1924.. ...	75,000 00	
Oct. 1, 1895	R.....	4	" —30 "	Oct. 1, 1925.. ...	60,000 00	
Oct. 1, 1896	R.....	4	" —20 "	Oct. 1, 1916.. ...	75,000 00	
Aug. 1, 1901	R.....	3½	" —30 "	Aug. 1, 1931.. ...	10,000 00	
Oct. 1, 1903	R.....	3½	" —30 "	Oct. 1, 1933.. ...	20,000 00	
May 1, 1904	R.....	3½	" —30 "	May 1, 1934.. ...	40,000 00	
Nov. 1, 1904	R.....	3½	" —30 "	Nov. 1, 1934.. ...	5,000 00	
May 1, 1905	R.....	3½	" —30 "	May 1, 1935.. ...	15,000 00	
May 1, 1906	R.....	4	" —30 "	May 1, 1936.. ...	10,000 00	
Apr. 1, 1907	R.....	4	" —30 "	Apr. 1, 1937.. ...	35,000 00	
Dec. 1, 1908	R.....	4	" —30 "	Dec. 1, 1938.. ...	5,000 00	
Jan. 1, 1910	R. & C.	3½	" —30 "	Jan. 1, 1940.....	23,000 00	
July 1, 1910,	R.....	4	" —30 "	July 1, 1940.....	15,000 00	
Mar. 1, 1911,	R.....	3½	" —30 "	Mar. 1, 1941.....	10,000 00	$413,000 00

SEWER LOAN. (Improved Sewerage.)

Nov. 1, 1899	R.....	3½	per cent.—30 yrs.	Nov. 1, 1929.. ...	$42,000 00	
July 2, 1900	R.....	3½	" —30 "	July 2, 1930.. ...	100,000 00	
Aug. 1, 1901	R.....	3½	" —30 "	Aug. 1, 1931.. ...	100,000 00	
Nov. 1, 1902	R.....	3½	" —30 "	Nov. 1, 1932.. ...	20,000 00	
Apr. 1, 1903	R.....	3½	" —30 "	Apr. 1, 1933.. ...	40,000 00	
May 1, 1904	R.....	3½	" —30 "	May 1, 1934.. ...	47,000 00	
May 1, 1905	R.....	3½	" —30 "	May 1, 1935.. ...	50,000 00	$399,000 00

Amount carried forward..... $6,793,750 00

CITY FUNDED DEBT—Continued.

Amount brought forward..... $6,793,750 00

SEWER LOAN. (Separate System of Drainage.)

May 1, 1904 R.....	3½ per cent.—30 yrs.	May 1, 1934.. ...	$25,000 00		
May 1, 1905 R.....	3½ " —30 "	May 1, 1935.. ...	25,000 00		
May 1, 1906 R.....	4 " —30 "	May 1, 1936.. ...	25,000 00		
Sept. 1, 1906 R.....	4 " —30 "	Sept. 1, 1936.. ...	25,000 00		
Apr. 1, 1907 R.....	4 " —30 "	Apr. 1, 1937.. ...	25,000 00		
Nov. 1, 1907 R.....	4 " —30 "	Nov. 1, 1937.. ...	10,000 00		
Aug. 1, 1908 R.....	4 " —30 "	Aug. 1, 1938.. ...	25,000 00		
Dec. 1, 1908 R.....	4 " —30 "	Dec. 1, 1938.. ...	12,000 00		
July 1, 1909 R.....	3½ " —30 "	July 1, 1939.....	2,000 00		
Jan. 1, 1910 C.....	3½ " —30 "	Jan. 1, 1940.....	23,000 00		
July 1, 1910, R.....	4 " —30 "	July 1, 1940.....	25,000 00		$222,000 00

STREET LOAN.

Aug. 1, 1894 C.....	4 per cent.—20 yrs.	Aug. 1, 1914.. ...	$30,000 00		
Oct. 1, 1895 R.....	4 " —20 "	Oct. 1, 1915.. ...	60,000 00		
Oct. 1, 1896 R.....	4 " —20 "	Oct. 1, 1916.. ...	137,000 00		
May 2, 1898 R.....	3½ " —20 "	May 2, 1918.. ...	15,000 00		
Nov. 1, 1899 R.....	3½ " —20 "	Nov. 1, 1919.. ...	5,000 00		
Nov. 1, 1900 R.....	3½ " —20 "	Nov. 1, 1920.. ...	21,000 00		
July 1, 1901 R.....	3½ " —20 "	July 1, 1921.. ...	54,000 00		
July 1, 1902 R.....	3½ " —20 "	July 1, 1922.. ...	30,000 00		
July 1, 1902 R.....	3½ " —10 "	July 1, 1912.. ...	24,000 00		
Nov. 1, 1902 R.....	3½ " —20 "	Nov. 1, 1922.. ...	14,000 00		
Apr. 1, 1903 R.....	3½ " —20 "	Apr. 1, 1923.. ...	4,000 00		
Nov. 2, 1903 R.....	3½ " —20 "	Nov. 2, 1923.. ...	12,000 00		
Sept. 1, 1904 R.....	3½ " —20 "	Sept. 1, 1924.. ...	59,000 00		
Nov. 1, 1904 R.....	3½ " —20 "	Nov. 1, 1924.. ...	6,500 00		
May 1, 1905 R.....	3½ " —20 "	May 1, 1925.. ...	84,000 00		
Nov. 1, 1905 R.....	3½ " —20 "	Nov. 1, 1925.. ...	1,500 00		
May 1, 1906 R. & C.	4 " —20 "	May 1, 1926.. ...	100,000 00		
Aug. 1, 1906 R.....	4 " —20 "	Aug. 1, 1926.. ...	22,000 00		
Apr. 1, 1907 R.....	4 " —20 "	Apr. 1, 1927.. ...	40,000 00		
June 1, 1907 R.....	4 " —20 "	June 1, 1927.. ...	19,000 00		
Sept. 1, 1907 R.....	4 " —20 "	Sept. 1, 1927.. ...	25,000 00		
Nov. 1, 1907 R.....	4 " —20 "	Nov. 1, 1927.. ...	10,000 00		
Jan. 1, 1908 C.....	4 " —20 "	Jan. 1, 1928.. ...	34,000 00		
Jan. 1, 1908 C.....	4 " —10 "	Jan. 1, 1918.. ...	10,000 00		
June 1, 1908 R.....	4 " —10 "	June 1, 1918.. ...	30,000 00		
Aug. 1, 1908 R.....	4 " —10 "	Aug. 1, 1918.. ...	7,000 00		
Aug. 1, 1908 R.....	4 " —20 "	Aug. 1, 1928.. ...	42,000 00		
Mar. 1, 1909 R.....	3½ " —20 "	Mar. 1, 1929.. ...	20,000 00		
Jan. 1, 1910 R.....	3½ " —10 "	Jan. 1, 1920.....	75,000 00		
Jan. 1, 1910 R. & C.	3½ " —20 "	Jan. 1, 1930.....	13,500 00		
July 1, 1910, R.....	4 " —20 "	July 1, 1930.....	12,000 00		
Mar. 1, 1911, R.....	3½ " —20 "	Mar. 1, 1940.....	42,000 00		
Mar. 1, 1911, R.....	3½ " —10 "	Mar. 1, 1921.....	60,800 00		$1,119,300 00

PLAYGROUND LOAN.

July 1, 1910, R.....	4 " —30 "	July 1, 1940.....			50,000 00

TOTAL FUNDED CITY DEBT $8,185,050 00

CITY FUNDED DEBT—Continued.

Following is a statement of the total Funded Water Debt of the City, with rates of interest thereon:—

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
Oct. 1, 1891 C.....	4 per cent —20 yrs.	Oct. 1, 1911.. ...	$35,000 00	
Jan. 1, 1892 C.....	4 " —20 "	Jan. 1, 1912.. ...	150,000 00	
May 2, 1892 C.....	4 " —20 "	May 2, 1912.. ...	75,000 00	
Nov. 1, 1892 C.....	4 " —20 "	Nov. 1, 1912.. ...	45,000 00	
Feb. 1, 1893 R.....	4 " —20 "	Feb. 1, 1913.. ...	100,000 00	
Aug. 1, 1893 R.&C.	4 " —20 "	Aug. 1, 1913.. ...	50,000 00	
Apr. 1, 1895 R.....	4 " —20 "	Apr. 1, 1915.. ...	200,000 00	
Aug. 1, 1895 R.....	4 " —20 "	Aug. 1, 1915.. ...	200,000 00	
Apr. 1, 1894 C.....	4 " —30 "	Apr. 1, 1924.. ...	300,000 00	
Apr. 1, 1896 R.....	4 " —20 "	Apr. 1, 1916.. ...	100,000 00	
July 1, 1896 R.....	4 " —20 "	July 1, 1916.. ...	200,000 00	
Aug. 1, 1896 R.....	4 " —20 "	Aug. 1, 1916.. ...	100,000 00	
Oct. 1, 1896 R.....	4 " —20 "	Oct. 1, 1916.. ...	265,100 00	
Apr. 1, 1897 R.....	3½ " —20 "	Apr. 1, 1917.. ...	200,000 00	
July 1, 1897 R.....	3½ " —20 "	July 1, 1917.. ...	100,000 00	
Nov. 1, 1897 R.....	3½ " —20 "	Nov. 1, 1917.. ...	75,000 00	
Dec. 1, 1897 R.....	3½ " —20 "	Dec. 1, 1917.. ...	140,000 00	
May 2, 1898 R.....	3½ " —20 "	May 2, 1918	50,000 00	
June 1, 1898 R.....	3½ " —20 "	June 1, 1918.. ...	60,000 00	
Nov. 1, 1898 R.....	3½ " —20 "	Nov. 1, 1918.. ...	50,000 00	
Nov. 1, 1899 R.....	3½ " —20 "	Nov. 1, 1919.. ...	23,000 00	
Nov. 1, 1900 R.....	3½ " —20 "	Nov. 1, 1920.. ...	30,000 00	
July 1, 1901 R.....	3½ " —20 "	July 1, 1921.. ...	30,000 00	
July 1, 1902 R.....	3½ " —20 "	July 1, 1922.. ...	13,500 00	
Nov. 1, 1902 R.....	3½ " —20 "	Nov. 1, 1922.. ...	5,000 00	
May 1, 1905 R.....	3½ " —20 "	May 1, 1925.. ...	46,000 00	
May 1, 1906 R.&C.	4 " —30 "	May 1, 1936.. ...	280,000 00	
June 1, 1907 R.....	4 " —30 "	June 1, 1937.. ...	49,000 00	
July 1, 1907 C.....	4 " —30 "	July 1, 1937.. ...	25,000 00	
June 1, 1908 R.....	4 " —20 "	June 1, 1928.. ...	20,000 00	
Aug. 1, 1908 R.....	4 " —30 "	Aug. 1, 1938.. ...	17,000 00	
Jan. 1, 1910 C.....	3½ " —20 "	Jan. 1, 1930.....	5,000 00	
Feb. 1, 1910 R.....	3½ " —20 "	Feb. 1, 1930.....	5,000 00	
Mar. 1, 1911, R.....	3½ " —20 "	Mar. 1, 1931.....	16,500 00	$3,060,100 00

SERIAL LOAN.

May 1, 1905 S.....	3½ per cent.— 6 yrs.	May 1, 1911.. ...	$12,500 00	
" 1, 1905 S.....	3½ " — 7 "	" 1, 1912.. ...	12,500 00	
" 1, 1905 S.....	3½ " — 8 "	" 1, 1913.. ...	12,500 00	
" 1, 1905 S.....	3½ " — 9 "	" 1, 1914.. ...	12,500 00	
" 1, 1905 S.....	3½ " —10 "	" 1, 1915.. ...	12,500 00	
" 1, 1905 S.....	3½ " —11 "	" 1, 1916.. ...	12,500 00	
" 1, 1905 S.....	3½ " —12 "	" 1, 1917.. ...	12,500 00	
" 1, 1905 S.....	3½ " —13 "	" 1, 1918.. ...	12,500 00	
" 1, 1905 S.....	3½ " —14 "	" 1, 1919.. ...	12,500 00	
" 1, 1905 S.....	3½ " —15 "	" 1, 1920.. ...	12,500 00	
" 1, 1905 S.....	3½ " —16 "	" 1, 1921.. ...	12,500 00	
" 1, 1905 S.....	3½ " —17 "	" 1, 1922.. ...	12,500 00	
" 1, 1905 S.....	3½ " —18 "	" 1, 1923.. ...	12,500 00	
" 1, 1905 S.....	3½ " —19 "	" 1, 1924.. ...	12,500 00	
" 1, 1905 S.....	3½ " —20 "	" 1, 1925.. ...	12,500 00	$187,500 00

TOTAL FUNDED CITY WATER DEBT $3,247,600 00

CITY FUNDED DEBT—Concluded.

	1910	April 1, 1911	Decrease
Funded Water Debt	$3,751,600 00	$3,247,600 00	$504,000 00
Sinking Fund	1,873,389 93	1,569,909 49	304,380 44
	$1,878,210 07	$1,677,590 51	$808,380 44

RECAPITULATION.

Amount of funded City Loan upon which interest is at 4 per cent	$3,764,800 00	
Amount of funded City Loan upon which interest is at 3½ per cent	4,320,250 00	
Amount of funded City Loan upon which interest is at 3 per cent	100,000 00	
		$8,185,050 00
Amount of Water Loan upon which interest is at 4 per cent	$2,227,600 00	
Amount of Water Loan upon which interest is at 3½ per cent	1,020,000 00	
		$3,247,600 00

Temporary loans for the past ten years and interest upon the same:

Year.	Temporary Loan.	Interest paid upon Loan.	Year.	Temporary Loan.	Interest paid upon Loan.
1900	$600,000	$9,961 96	1905	$575,000	$8,829 92
1901	550,000	6,759 03	1906	413,000	9,314 60
1902	520,000	8,337 76	1907	720,000	13,794 10
1903	701,000	9,384 13	1908	495,000	9,175 71
1904	550,000	8,548 37	1909	760,000	7,670 53
			1910	395,000	3,679 44

ANNUITIES

	Original Gift.	Annual Payment.
Daniel White Charity Annuity	$5,000	$300
Dowse Institute "	10,000	600
Sanders Temperance "	10,000	600
	$25,000	$1,500

DANIEL WHITE CHARITY. ($10,360.00.)

Established by Daniel White, of Charlestown, in his lifetime, for the purchase and distribution of fuel among the deserving poor of Cambridge, his native city.

May 15, 1863, he appointed four trustees, with the Mayor of Cambridge, *ex officio*, to distribute not exceeding $300.00 per year. The trustees fill any vacancies in their number, in case of death, etc. Ex-Mayor J. Warren Merrill added a bequest in cash and stocks to the value of $5,360.00, thus making the principal $10,360.00. The present permanent members are George S. Saunders, Lucas B. Grover, Willard A. Bullard and George H. Howard, and the fund is invested by the trustees.

THE DOWSE INSTITUTE. ($10,000.00.)

The executors of Thomas Dowse, under a discretionary power in his will, gave to the City, on June 3, 1858, the sum of ten thousand dollars for an annual course of lectures, the City agreeing to pay to the trustees of said institute interest thereon at the rate of six per cent. per annum. The trustees consist of three permanent members, with the Mayor and the President of the Common Council, for the time being. The original permanent members were appointed by the executors, and the board fills its own vacancies.

THE SANDERS TEMPERANCE ANNUITY ($10,000.00)

This sum was given to the City by the will of Charles Sanders, of Cambridge, who died April 7, 1864, for the support of a missionary to promote the cause of temperance. The trustees consist of the Mayor, President of the Board of Aldermen and President of the Common Council. The City pays a missionary $600.00 per year to carry out provisions of the will.

THE HOPKINS FUND. (£500.)

Edward Hopkins died in London, England, in 1657 or 1658, leaving £500 to be used upon the death of his widow, to aid a college and school in New England. The Court of Chancery gave it to Harvard College and a school in Cambridge. One-fourth of the net income is paid annually to the City for classical instruction in the Latin School. The trustees are a corporation established in Boston.

[CHAPTER 322.]

AN ACT TO PROVIDE FOR THE AUDITING OF CERTAIN TRUST FUNDS AND ACCOUNTS.

Be it enacted, etc., as follows:

SECTION 1. It shall be the duty of city and town auditors at least once every year, and so much oftener as they may deem it necessary, to audit the accounts of the trustees of any property, the principal or income of which, in whole or in part, was bequeathed or given in trust for the benefit of the city or town or any part thereof, or for the benefit of the inhabitants of the city or town or any part thereof, and to examine and estimate the funds, securities and evidences of property held by such trustees. City and town auditors shall include in their annual reports a report of such auditing and investigation; and if they discover any fraud or irregularity they shall immediately report the same to the mayor and treasurer of the city or to the selectmen and treasurer of the town.

SECTION 2. It shall be the duty of the trustees designated in section one hereof to give city and town auditors free access to their accounts, funds, securities and evidences of property; and any such trustee who refuses to exhibit his trust accounts, funds, securities and evidences as aforesaid shall be subject to a fine of not less than fifty nor more than two hundred dollars.

SECTION 3. This act shall be construed as applying only to property held in trust for public uses. [*Approved May* 9, 1904.]

Under the provisions of the foregoing Act, I hereby certify that I have examined the accounts, vouchers and securities belonging to the Trust Funds held for public uses and find them correct and in excellent condition.

Attest,

CHARLES H. THURSTON, *City Auditor.*

April 1, 1911.

THE TRUST FUNDS.

CEMETERY FUND FOR PERPETUAL CARE OF LOTS

Held in trust by the City, comprising sums received from the proprietors of lots in Cambridge Cemetery for the perpetual care of their lots therein. The fund is almost all invested in City of Cambridge registered bonds. First established in 1860.

Amount of Fund, March 31, 1910	$80,943 65	
Received in 1910, from proprietors of lots	2,723 25	
		$83,666 90
Invested as follows, viz.:		
City of Cambridge registered bonds	$83,750 00	
Deposited in Cambridgeport Savings Bank	108 90	
		83,858 90
Interest received during the year ending March 31, 1911, and paid for care of lots		3,069 70

CEMETERY FUND: DEEDS IN TRUST

Held in trust by the City, comprising sums received from the proprietors of lots in Cambridge Cemetery for the furtherance of certain trusts mentioned in conveyances of lots to the City in trust.

The fund amounts to $192.00, and was first established March 11, 1901.

Included in investment of Perpetual Care Fund	$192.00

THE BRIDGE CHARITABLE FUND

Founded by the late Levi Bridge of Cambridge, in his lifetime, by a deed of trust dated August 12, 1875, and upon his death (April 15, 1876), the amount of said fund came into the hands of the City. In October, 1877, Mr. Samuel F. Bridge, a relative of the founder, gave a sum sufficient to double the amount. When the fund reached two thousand dollars one-third of the income was to be added to the principal and two-thirds paid over annually to the Overseers of the Poor, to be expended for the deserving poor of Cambridge. The trustees consist of the Mayor, the President of the Board of Aldermen, and the President of the Common Council.

Balance in Bank, March 31, 1910	$2,608 23
Receipts from interest on fund	92 07
	$2,700 30
Balance in Cambridgeport Savings Bank	$2,700 30

THE TRUST FUNDS—Continued.

CITIZENS' SUBSCRIPTION FUND. ($5,500.00.)

In 1889, a committee of citizens raised by subscription a fund to enable the trustees to purchase a large number of books at the time the new public library building was opened. The unexpended balance (fifty-five hundred dollars), was invested and the income is used for the same purpose.

Balance in bank, March 31, 1909	$4 91	
Receipts	236 76	
		$241 67
Expenditures		239 87
Balance on deposit		$1 80
The principal is invested in Cambridge Sewer Bonds		$5,500 00

CUMMINGS LEGACY. ($2,000.00.)

As provided in the will of Daniel P. Cummings, who died May 3, 1889, the sum of two thousand dollars was paid over to the trustees of the Public Library, the annual income to be expended by said trustees in the purchase of non-sectarian books for the Public Library.

Balance on deposit, March 13, 1909	$12 65	
Receipts	70 00	
		$82 65
Expended		75 00
Balance on deposit		$7 65
The principal is invested in Cambridge Water Bonds		$2,000 00

FAY LEGACY. ($1,000.00.)

In accordance with the provisions of the will of Isaac Fay, who died December 29, 1872, the sum of one thousand dollars was paid to the trustees of the Dana Library (now the Cambridge Public Library) for the time being, "which sum shall be safely invested by said trustees, and the income thereof appropriated to the purchase of books for said Library."

Balance on deposit, March 31, 1909	$3 82	
Receipts	35 00	
		$38 82
Expenditures		23 75
Balance on depcsit		$15 07
The principal is invested in a Cambridge schoolhouse bond		$1,000 00

WILLIAM E. SAUNDERS FUND ($7,465.78).

In accordance with the will of Abigail L. Prentiss, the residue, after the termination of certain annuities, was paid to the Trustees of the Cambridge Public Library, the annual income to be used for the purchase of books to be placed in the William E. Saunders alcove, and for the care of the same. This alcove is assigned to books on genealogy.

Balance on deposit, March 31, 1909	$0 91	
Receipts	260 86	
		$261 77
Expenditures		258 17
Balance on deposit		$3 60

THE TRUST FUNDS—Concluded.

The principal is invested as follows, viz.:		
Cambridge Bonds	$7,000 00	
Cambridgeport Savings Bank	465 78	
		$7,465 78

JAMES A. WOOLSON FUND. ($5,000.00.)

By the request of James A. Woolson the sum of five thousand dollars was paid to the Trustees of the Cambridge Public Library, the income only to be used for the purchase of books. In each book purchased there is placed an appropriate book-plate.

Balance on deposit, March 31, 1910	$1 46	
Receipts	175 00	
		$176 46
Expenditures		152 83
Balance on deposit		$23 63
The principal is invested in Cambridge Bonds		$5,000 00

EDWARD H. WHORF FUND.

Deposited in Harvard Trust Company		$3,840 00
Interest on deposit		65 72
Discount on bonds purchased		274 42
		$4,180 14
Expended	$830 45	
Bond purchased	3,000 00	
		$3,830 45
Balance on deposit		349 69
The principal is invested in three American Telephone and Telegraph Company bonds		$3,000 00

SARAH E. RUSSELL FUND. ($814.41.)

As provided in the will of Sarah E. Russell, of Cambridge, who died October 6, 1897, the sum of eight hundred fourteen dollars and forty-one cents was paid to the City by the executors of the will, "the income therefrom to be annually expended in or towards providing a Christmas tree or Christmas gifts and entertainments for the inmates at the time of the Cambridge Almshouse." Mrs. Russell was the widow of Hon. Charles Theodore Russell, and the mother of Hon. William E. Russell, both of whom served the City as Mayor.

Amount of deposit, March 31, 1910	$814 41
Interest to July 21, 1909	28 74
	$843 15
Amount paid as per provision of bequest, December 23, 1910	28 74
Balance in Cambridgeport Savings Bank, March 31, 1911	$814 41

TAXES

The amount of taxes assessed by the Board of Assessors on the real and personal estates and polls of Cambridge, April 1, 1910, was as follows:

Valuation of real estate		$92,021,800 00
Valuation of personal estate		18,774,935 00
		$110,796,735 00
Assessed at $20.10 per $1,000 gives		$2,227,014 37
26,660 polls at $2.00		53,320 00
Bank stock (non-resident separately assessed)		3,100 73
		$2,283,435 10

The tax is divided as follows:

For city purposes*		1,794,387 87
County Assessments		108,787 44
Overlay		29.114 82
State Assessments:		
State charge for non-resident bank stock		3,100 73
State	$156,860 00	
Sewerage	99,695 56	
Parks	60,573 68	
Charles River Basin	24,331 00	
Grade Crossings	6,584 00	
		348,044 24
		$2,283,435 10
Increase in real estate valuation		1,182,300 00
Increase in personal valuation		2,656,300 00
		$3,838,600 00
Increase in number of polls since last year, 762 polls at $2		1,524 00
Gain in valuation since last year		$3,840,124 00

Number of houses in 1910	14,150½
Number of horses assessed	3,578
Number of cows assessed	72
Number of swine assessed	64
Number of mules assessed	20
Number of hens assessed	200

*To meet the City expenses the income from various departments is added to this sum raised by taxation.

Statement of the valuations of the personal property and real estate of the City of Cambridge, with the number of polls, dwellings, and rate of taxation for the past twenty years:

Year.	Polls.	Personal.	Real Estate.	Total.	Dwellings.	Rate per $1,000.
1891	20,731¼	$16,508,770	$54,167,914	$70,676,684	10,932	$15 50
1892	22,013¼	17,687,595	56,668,100	74,355,695	11,359	15 00
1893	22,752	17,511,089	58,782,900	76,293,989	11,768	16 40
1894	22,172	16,658,320	60,877,300	77,535,620	12,262	15 80
1895	22,781	16,607,360	64,303,700	80,911,060	12,305	15 70
1896	23,847	15,914,995	67,835,100	83,750,095	12,723	15 10
1897	24,407	16,302,545	70,339,200	86,641,745	13,217	17 50
1898	24,628	16,642,990	72,908,100	89,551,090	13,473	16 40
1899	24,995	16,991,995	74,550,800	91,542,795	13,588	17 10
1900	25,117	17,865,230	76,600,700	94,465,930	13,713	16 90
1901	25,306	17,648,575	78,568,300	96,216,875	13,846½	16 90
1902	25,680	17,742,985	80,396,900	98,139,885	13,889 2-3	18 30
1903	25,749	17,708,510	87,063,400	104,771,910	13,833	16 90
1904	25,968	17,346,500	87,481,100	104,827,600	13,858	17 90
1905	26,096	15,994,100	87,851,500	103,845,600	13,893	19 00
1906	26,434	16,550,235	88,603,000	105,153,235	13,937½	18 60
1907	26,064	17,773,990	89,235,300	107,009,290	14,018 1-5	18 80
1908	25,815	16,854,775	90,026,300	106,881,075	13,969 5-6	20 10
1909	25,898	16,118,635	90,839,500	106,958,135	14,010 5-6	21 00
1910	26,660	18,774,935	92,021,800	110,796,735	14,150⅓	20 10

Abatements upon taxes for the past twenty years, and amount of tax uncollected March 31, 1911:

Year.	Total Tax.	Total Abatements	Amount of Tax uncollected March 31, 1911.
1891	$1,143,712 67	$21,343 12	.....
1892	1,240,186 50	21,636 54	.....
1893	1,303,639 84	24,678 10	.....
1894	1,278,899 72	26,926 07	.....
1895	1,324,613 76	19,427 40	.....
1896	1,321,932 65	17,922 54	.....
1897	1,574,047 50	22,081 73	.....
1898	1,527,863 88	27,566 98	.....
1899	1,623,592 35	35,317 61	.....
1900	1,654,588 36	33,005 90	.....
1901	1,683,690 84	24,390 38	.....
1902	1,854,557 82	30,013 44	.....
1903	1,828,456 95	41,525 33	.....
1904	1,934,772 56	50,088 47	.....
1905	2,031,457 20	48,886 73	.....
1906	2,012,805 80	61,528 79	.....
1907	2,068,170 44	63,352 34	$25,197 13
1908	2,204,263 62	53,233 20	25,755 69
1909	2,302,311 40	41,118 32	33,467 70
1910	2,283,435 10	38,523 82	141,062 21

On January 27, 1911, the Assessors upon request and affidavit of Treasurer and Collector abated uncollectable taxes of

1903	$19,003 49
1904	18,839 46
1905	20,084 61
1906	20,169 83

ABATEMENT CERTIFICATES ALLOWED BY BOARD OF ASSESSORS.

	Real.	Personal.	Polls.	Total.
Taxes of 1908	$251 25	$6 03	.....	$257 28
" " 1909	1,474 55	279 30	.....	1,753 85
" " 1910	18,845 90	17,444 79	$582 00	185 23
Street Watering	....	.....	.....	9 35
Moth Assessment	... .	.....	.....	36,872 69
	$20,571 70	$17,730 12	$582 00	$39,078 40

The valuation of estates in this City, for the years hereinbefore mentioned, are the same as originally made by the Board of Assessors during those years and the same figures were reported by that Board to the Tax Commissioners for each of the years respectively. These valuations were subject to changes in each year, after such report was made, as shown by the following:

Net valuations of estates in the City of Cambridge, for the past three years, after adding the amounts of all supplementary warrants and deducting therefrom all abatements:—

Year.	Total Valuation.	Abatements.	Net Valuation.
1908	$107,366,375	$3,470,700	$103,895,675
1909	108,524,135	1,462 964	106,661,171
1910	112,163,135	1,277,447	110,885,688
	$328,053,645	$6,611,111	$321,442,534

BORROWING CAPACITY.

The average net valuation of the City of Cambridge for the years 1908, 1909 and 1910 ..... $107,147,511 33

This last sum represents the amount upon which the limit of the rate of taxation, and also of municipal indebtedness is fixed under the provisions of Section 3 of Chapter 27 of the Revised Laws.

2½ per cent. on same is			$2,628,687 78
The entire City Debt is		$8,185,050 00	
Of this amount the following loans are not within the legal debt limit, being exempted by the following Acts of the Legislature:			
Cambridge Bridge Loan.			
Acts of 1898, Chapter 467.....	$1,620,000 00		
Brookline Bridge Approach.			
Acts of 1898, Chapter 467.....	25,000 00		
Acts of 1904, Chapter 391.....			
Commercial Avenue Bridge.			
Acts of 1903, Chapter 372.....	50,000 00		
Cambridge Bridge Special Loan. Charles River Dam			
Acts of 1904, Chapter 158.....	28,000 00		
Clay Land Loan.			
Acts of 1896, Chapter 175.....	97,000 00		
Harvard Bridge Loan.			
Acts of 1887, Chapter 282.....	400,000 00		
Acts of 1888, Chapter 73.....			
Acts of 1891, Chapter 316.....			
Park Loan.			
Acts of 1892, Chapter 341	1,586,800 00		
Acts of 1893, Chapter 337			
Acts of 1894, Chapter 89			
Acts of 1897, Chapter 469			
Acts of 1899, Chapter 221			
Sewer Loan.			
Acts of 1899, Chapter 473.....	399,000 00		
Acts of 1899, Chapter 189.....			
Acts of 1903, Chapter 383	272,000 00		
Hospital Loan.			
Acts of 1895, Chapter 99	121,000 00		
Metropolitan Park Assessment Loan.			
Acts of 1902, Chapter 325	46,000 00		
City of Cambridge Loan.			
Acts of 1908, Chapter 367	400,000 00		
Playgrounds Loan	50,000 00		
		5,094,800 00	
		$3,190,250 00	
The entire Sinking Fund is.....		$2,111,262 86	
Of this amount there should be deducted on account of Exempted Loans as follows:			
Cambridge Bridge	$149,619 41		
Amounts carried forward.	$149,619 41	$2,111,262 86	$3,190,250 00 $2,628,627 78

Amounts brought forward	$149,619 41	$2,111,262 86	$3,190,250 00	$2,628,627 78
Harvard Bridge	256,685 45			
Brookline Bridge	1,402 17			
Commercial Avenue Bridge	2,804 26			
Parks	383,139 59			
Clay Lands	82,834 06			
Improved Sewerage	85,283 30			
Hospital	3,540 46			
Metropolitan Park Assessment	9,075 72			
Cambridge Bridge Special	4,014 14			
Separate System of Drainage	14,527 14			
City of Cambridge, Acts 1908	73,088 10			
Cambridge Bridge B. & R.	257,500 00			
		1,323,513 80		
Net Sinking Fund			787,749 06	
Net City Debt, March 31, 1911				2,302,500 94
Borrowing capacity for City purposes, March 31, 1911				$326,186 84

SCHEDULE B

No. IX

LIST OF CITY PROPERTY

AS FURNISHED BY

Executive Boards and Heads of Departments

IN

1911

LAW DEPARTMENT

LOCATED AT CITY HALL OFFICE

1 roll top desk and chair	$25 00
Massachusetts Digest	48 00
Revised Laws, Public Statutes, Blue Books and Blanks	25 00

LOCATED IN OFFICE IN BOSTON, ROOMS 541-542 TREMONT BUILDING

1 Smith Premier Typewriter No. 5	$50 00
1 typewriter desk and chair	15 00
1 Lang Document Filing Cabinet	10 00
1 Blank Filing Cabinet	25 00
1 Wernecke Blank Section	10 00
	$208 00

PUBLIC PROPERTY DEPARTMENT

CITY BUILDINGS

	Feet of Land.	Purchase of Land.	Erection of Buildings.	Valuation of Land.	Valuation of Buildings.	Valuation of Furniture.
City Hall	47,878	1888	1888	$95,000	$200,000	$29,800
Brattle Sq. Bldg.	16,153	1873	1874	24,000	60,000	2,500
Central Sq. Bldg.	13,028	1872	1873	10,500	50,000	2,436
Station 3	4,220	1862	1870	1,200	20,000	800
Station 4	6,316	1872	1873	5,000	5,300	300
				$135,700	$335,300	$35,836

Voting booth, corner Cambridge and Hampshire Streets	$500 00	
Five portable voting booths	2,500 00	
Voting compartments and fixtures (500)	2,500 00	
		$5,500 00

PERSONAL PROPERTY

1 horse	$250 00	
3 robes	32 00	
1 wagon	100 00	
Top buggy	150 00	
Sleigh	35 00	
		$5670 00

CITY PROPERTY IN USE BY THE POLICE DEPARTMENT

PERSONAL PROPERTY

21	desks	$200 00	
75	chairs	100 00	
10	tables	10 00	
8	clocks	15 00	
7	settees	4 00	
42	lanterns	35 00	
4	oil cans	2 00	
4	ice water tanks	2 00	
30	tin dippers	3 00	
15	mats	25 00	
12	ink stands	10 00	
4	medicine cabinets	20 00	
1	operating table and chair	25 00	
4	book cases	25 00	
12	mirrors	10 00	
7	pair hand cuffs	15 00	
2	wardrobes	10 00	
8	set grappling irons	15 00	
3	umbrella stands	2 00	
3	American flags	20 00	
140	revolvers	700 00	
130	belts	100 00	
149	books, rules and reg.	55 00	
145	badges	55 00	
13	waste paper baskets	5 00	
6	directories	20 00	
25	cuspidors	10 00	
2	safes	50 00	
1	camera stand	2 00	
2	photo trays	2 00	
2	photo washing boxes	1 00	
2	graduates and glass tunnel	75	
1	Bertillon book	2 00	
1	finger print book	1 00	
1	private telephone system	200 00	
1	sleigh	25 00	
2	old wagons, of no value		
2	ccuches		$15 00
1	letter scale		50
1	rogues' gallery		50 00
7	bicycles		35 00
1	index card case		50 00
1	typewriter and desk		100 00
1	copy press		5 00
5	maps		1 50
3	fire ropes		2 50
3	feather dusters		2 50
11	iron beds and clothing		100 00
150	diaries		75 00
3	wagons @ $350.00		1,050 00
1	old wagon		50 00
1	van		100 00
1	ambulance		100 00
5	horses		1,000 00
6	set of harnesses		60 00
2	extra collars		10 00
5	horse blankets		5 00
6	ambulance blankets		6 00
8	galvanized cans		8 00
6	stable forks		3 00
5	pails		1 25
1	chiffonier		10 00
3	shovels		1 50
3	wagon jacks		3 00
4	grain measures		24
3	grain chests		10 00
75	feet rubber hose		5 00
5	horse combs		50
5	horse brushes		50
5	robes		2 00
5	set law books		10 00
1	dictionary		1 00
1	pair leg irons		5 00
	Total		$4,655 74

FIRE DEPARTMENT

REAL ESTATE

Buildings.	Location.	Land Purchased.	Erection of Buildings.	Land, Sq. Feet.	Assessed Value.	
					Land.	Building
Engine House No. 1 Ladder House No. 1	108 Mt. Auburn St. Eliot Square.....			In City	building	schedule
Engine House No. 2 Ladder House No. 3	384-394 Mass. Av.	Owned by City.	1893	10,000	$10,000	$26,000
Engine House No. 3	35 Third St.....	1895	1895	10,100	5,500	17,500
Engine House No. 4	2029 Mass. Av.....	1896	1895	9,532	9,500	23,000
Engine House No. 5	Inman Square.....	1874	1874	6,000	5,000	10,000
Engine House No. 6	176 River St.....	1890	1890-1891	4,994	2,500	12,000
Engine House No. 7	350 Main St.....	Owned by City.	1894-1895	9,400	7,300	12,000
Chemical Engine House No. 1.....	5 Western Ave....	.....	.....	In City	building	schedule
Chemical Engine House No. 2.....	167 Lexington Ave,	1893	1894	15,262	4,000	16,000
Ladder House No. 2	276 Portland St....	Owned by City.	1887	11,931	3,000	12,000
Engine House No. 8	Junction of Sherman and Garden St.	1903	1904-1905	10,380	2,800	30,000
					$49,600	$158,500

PERSONAL PROPERTY

ESTIMATED VALUE OF

Apparatus, hose, etc.....	$68,200 00	
Bedding and furniture	4,705 00	
Hardware and tools	894 00	
Horses and harnesses	16,000 00	
Miscellaneous	1,100 00	
		$90,899 00

FIRE ALARM AND POLICE TELEGRAPH

ELECTRICAL DEPARTMENT, WIRE ACCOUNT

EQUIPMENT

Fire Alarm apparatus and machinery	$11,300 00	
Fire Alarm and Police Telegraph Circuits.....	7,000 00	
110 Fire Alarm boxes	8,040 00	
Police Signal appartus and machinery	3,000 00	
89 Police boxes	9,350 00	
Police Signal reserve apparatus	150 00	
Testing instruments	450 00	
Tools	250 00	
Stock on hand	1,500 00	
Old and disused apparatus	150 00	
Horses, wagons and harnesses	650 00	
Building in Cushing School yard	500 00	
		$40,090 00

HEALTH DEPARTMENT

REAL ESTATE

Number.	Street.	Houses.	Sheds.	Value of Buildings.	Value of Land.	Total Value.	Area	Remarks.
59	Reservoir	1	....	$3,600	$8,300	$11,900	sq. ft. 16,624	Taken by Board of Health, Nov. 2, 1899
47	New.....	....	....	.....	600	600	sq. ft. 10,800	" " " " " Nov. 21, 1901
51	New.....	....	....	.....	900	900	sq. ft. 13,980	" " " " " Oct. 25, 1901
67	New.....	....	....	.....	300	300	sq. ft. 6,140	" " " " " Mch. 24, 1902 Feb. 8, and Mch. 24, 1902
	Concord Ave.	....	....	12,300	4,500	16,800	acres 7.48	" " " " " Dec. 28, 1901
				$15,900	$14,600	$30,500		

PERSONAL PROPERTY

In office:

4 desks and desk chair	$135 00	
Revolving bookcase	9 00	
Card cabinets and letter files	22 50	
Dictionary and 3 atlasses	45 00	
Typewriting machine and desk	60 00	
Stationery and sundries	115 00	
		$386 50

In Laboratory:

Microscope	$54 00	
Incubator and thermo-regulator	27 00	
Sterilizing oven	2 25	
Centrifuge	22 50	
Test tubes	13 00	
Diphtheria Sputum and Typhoid Outfits	25 00	
Laboratory supplies	15 00	
Cards, card cabinet, stamps and stamp rack...	38 50	
		197 25

At Stable:

Horse	$135 00	
Ambulance	582 00	
Van	90 00	
Buggies and sleigh	215 00	
Harnesses	90 00	
Blankets and horse covers	13 50	
Ambulance blankets	36 00	
Disinfecting apparatus and materials	154 00	
		1,315 50

Amount carried forward..... $1,899 25

PERSONAL PROPERTY

Amount brought forward		$1,899 25
At Diphtheria Hospital:		
Linen and bedding	$225 00	
Instruments and nursing utensils	80 00	
Dishes and kitchen utensils	69 00	
General furnishings	427 00	
		826 00
At Contagious Hospital, Concord Avenue:		
Linen and bedding	$1,096 00	
Instruments and nursing utensils	90 00	
Dishes and kitchen utensils	200 00	
General furnishings	1,100 00	
		2,496 00
		$5,221 25

INSPECTOR OF MILK AND VINEGAR DEPARTMENT

PERSONAL PROPERTY

16 platinum dishes		$286 72	
1 cream seal		7 50	
1 drying oven		6 00	
1 Zeiss Refractometer		75 00	
Chemicals and glassware		25 00	
Water bath		22 00	
Electric Centrifuge		88 00	
Polariscope		55 00	
Analytical balance and weights		60 00	
Muffle furnace		5 00	
Busner stand		15 00	
Office furniture		50 00	
Discarded apparatus		20 00	
1 high-speed Centrifuge		43 50	
1 autoclave and fittings		115 00	
1 milk-collecting cutfit		15 00	
Apparatus for plating bacteria:			
6 tube holders	$6 00		
1 bath for melting agar	2 00		
1 bath, water jacketed for melting agar	5 00		
2 racks for test tubes	3 00		
2 Petri dish holders	2 00		
		18 00	
Petri dishes and glassware:			
12 doz. pipettes	$10 00		
6 doz. Petri dishes	6 50		
6 doz. Petri covers	3 50		
Counting glass	1 00		
		21 00	
Intermission Refractometer		100 00	
			$997 72

THE MODIFIED MILK ENTERPRISE

9 stock pots	$19 52	
30 galvanized iron racks	97 73	
28 wooden cases	20 59	
5 baby scales	10 85	
2 gas stoves	4 50	
3 boilers	13 50	
1 bottle filler	26 85	
7 tables	7 00	
Stoppers and bottles	86 40	
Index cards	3 00	
1,000 pamphlets	16 45	
Signs	10 00	
Barrel	1 75	
1 Galvanized iron sterilizing closet	54 00	
		$372 14

CAMBRIDGE CEMETERY

57.576 acres of land	$92,000 00
1 office building	2,500 00
1 house	2,500 00
1 stable and shed	1,000 00
Personal Property	3,500 00
	$101,500 00

SEALER OF WEIGHTS AND MEASURES DEPARTMENT

INVENTORY OF PROPERTY

STANDARDS FURNISHED BY COMMONWEALTH

1 balance, 5 grains to 100 lbs.
1 set (5) avoirdupois weights, 50, 25, 20, 10, 5 lbs.
1 set (11) avoirdupois weights, 4 lbs. to 1-16 oz.
1 kilogramme in case.
1 steel meter in case.
1 brass yard measure.
1 set (5) iron dry measures, 1-2 bushel to 1 quart.
1 set (6) iron liquid measures, 1 gallon to 1 gill.

Office furniture	$200 00	
1 horse	200 00	
1 express wagon	100 00	
1 light wagon	85 00	
1 pung	23 00	
2 harnesses	70 00	
1 plush robe	1 00	
1 stable blanket	2 00	
Amount carried forward	$681 00	

SEALER OF WEIGHTS AND MEASURES DEPARTMENT—Concluded.

Amount brought forward	$681 00	
1 rain blanket	2 00	
1 woolen blanket	5 00	
1 halter	75	
1 hitch weight	50	
1 wagon scale at Lechmere Square	400 00	
1 wagon scale at Porter Road	350 00	
1 platform scale, 1-2 lb. to 2,500 lbs.	75 00	
1 folding platform scale, 1-4 lb. to 600 lbs.	30 00	
1 spring scale, 1 lb. to 125 lbs	1 00	
1 balance, 1-10 milligramme to 500 grammes	35 00	
1 balance, 1-50 grain to 8 oz.	15 00	
1 sealers' balance, 1 grain to 8 lbs.	50 00	
2 sealers trip scales (not used)	5 00	
2 sets avoirdupois weights (19), 4 lbs. to 1-8 oz.	10 00	
1 set troy weights (9), 16 oz. to 1-8 oz.	3 00	
1 set metric weights (13), 1 kilo to 1 gramme	5 00	
5 boxes miscellaneous weights (not standardized)	10 00	
1 set iron welghts (3), 25, 10, 5 lbs.	5 00	
40 50-lb. weights	100 00	
3 glass graduates	1 00	
1 set copper dry measures (5), 1-2 bushel to 1 quart	45 00	
1 set brass dry measures (3), 1 quart to 1-2 pint	5 00	
2 sets copper liquid measures (14), 1 gallon to 1 gill	30 00	
1 steel surveyor's tape	10 00	
1 iron truck	5 00	
Miscellaneous tools	50 00	
1 branding furnace	5 00	
1 set brands	3 00	
2 sets weights of precision	27 00	
1-5 gallon measure	15 00	
Inside caliper	3 50	
1 yard measure	1 50	
1 sealer's balance, 1 grain to 100 lbs.	150 00	
1 leather tool bag	7 00	
1 arch	2 00	
		$2,143 25

CITY HOME ESTATE

Thirty-two (32) acres land bought Aug. 7, 1849.

Present City Home completed and placed under the care of the Overseers of the Poor, April 3, 1851.

Land cost	$12,000 00	
City Home cost	32,970 69	
Fences, furniture, etc., cost	3,000 00	
Total		$47,970 69
Hospital cottage on City Home grounds built in 1886, moved and rebuilt in 1901, cost		2,800 00
Two-story brick building erected 1888 cost		5,600 00

Land situated in Cambridge	14 242-1000	acres
" " " Somerville	7 954-1000	"
" " " Arlington	100-1000	"
Lands (salable) on plan of April 10, 1884:		
30 lots of 5,000 feet each (in Somerville)	3 443-1000	"
Total acres of land	25 739-1000	"

About seven acres of City Home land lying south of Broadway in West Somerville have been sold for house lots. The remaining lots (30) contain 150,000 square feet, and have been held at a valuation of four cents per square foot, but at the present time are assessed for about ten cents.

The valuation of the City Home real estate by the assessors is:

Land in Cambridge	$21,000 00	
Buildings in Cambridge	25,000 00	
Land in Somerville	32,200 00	
Buildings in Somerville	3,200 00	
Land in Arlington	300 00	
Total		$81,700 00

INVENTORY OF PERSONAL PROPERTY AT CITY HOME

April 1, 1911

Bookkeeping account books, stationery, etc.	$100 00
Drugs, medicines and hospital supplies	300 00
Dry goods, clothing, bedding, furniture, carpets, etc.	5,000 00
Groceries and provisions	270 00
Farm and Stable:	
2 horses, 120 fowls, 660 hot bed sashes, 260 straw mats, 230 shutters, 5 wagons, 1 pung, 2 carriages, 2 sleighs, 5 harnesses, farming implements, tools, fertilizers, etc.	3,700 00
Offal Department:	
21 wagons, 20 pungs, 24 harnesses, 24 horses, 65 blankets, etc.	8,000 00
Outside Aid:	
2 wagons, 2 pungs, 1 harness	400 00
Groceries	200 00
Total	$17,970 00

INVENTORY OF PERSONAL PROPERTY AT OVERSEERS' OFFICE

CENTRAL SQUARE BUILDING, April 1, 1910

Office furniture, filing cases, bookcases, typewriter, books, stationery, etc.	$600 00
City Physician's office—Instruments, microscope, operating table, furniture, medicine, etc.	350 00
Total	$950 00

ENGINEERING DEPARTMENT

PERSONAL PROPERTY

6 books, at $3 each	$18 00	
22 volumes engineering papers, at $2.50	55 00	
5 logarithm books	5 00	
1 pantograph	10 00	
2 planimeters, at $20	40 00	
1 neostyle	5 00	
2 numbering machines, at $5 each	10 00	
1 typewriter	50 00	
Drawing instruments, pens, compasses, etc.	75 00	
Drawing materials and paper	25 00	
Wye level	50 00	
Dumpy level ($40), Hand level ($5)	45 00	
2 transits, at $100 each	200 00	
Level, line and sounding rods	45 00	
8 tapes	40 00	
Testing pans, moulds, etc.	10 00	
Testing machinery	50 00	
Electric motor	10 00	
Furniture in office	300 00	
Photographic outfit	50 00	
Rain gauges, standard and self-recording	75 00	
Plans, estimated value, $10 each	108,720 00	
440 field, survey, line and level books, estimated value $20.00	8,800 00	
		$118,768 00

SEWER DEPARTMENT

REAL ESTATE

Location	Buildings.	Erection of Buildings.	Purchase of Land.	Feet of Land	Assessors' Valuation of Land.	Assessors' Valuation of Buildings.	Total.
Pilgrim Street	Stable...	1887					
		1881					
" "	Sheds ...	1884					
		1892					
" "	House...	1890	1868	23,707	$5,900 00	$5,600 00	$11,500 00

SEWERS

143.04 miles of sewers, which have cost to construct $2,163,513 87

PERSONAL PROPERTY

1 buggy	$225 00
4 carts, steel, sanitary	600 00
1 cart, sanitary	50 00
2 carts, tip	50 00
Amount carried forward	$925 00

Amount brought forward	$925 00	
1 open wagon	75 00	
1 dray	75 00	
1 derrick, 4-leg	10 00	
1 engine, hoisting	300 00	
10 harnesses, sets of, and horse clothing	200 00	
4 horses	500 00	
4 hand pumps and 1 submerged pump	150 00	
1 roller, horse, street	100 00	
Rubber goods, miscellaneous	75 00	
1 sewer cleaning machine, "Healy"	400 00	
3 sleighs	75 00	
Tool-houses, etc.	200 00	
1 trench machine, "Carson"	750 00	
1 wagon, canopy top	100 00	
1 wagon, express	75 00	
Tools and Implements, Stock on hand—bricks and castings, lumber and pipe	1,500 00	
		$5,510 00

STREET DEPARTMENT.

INVENTORY OF REAL AND PERSONAL PROPERTY

REAL ESTATE

Location.	Buildings.	Erection of Buildings.	Purchase of Land.	Feet of Land.	Valuation of Land.	Valuation of Buildings.
Raymond St	City Yard and Stable, stable, sheds, scales, etc	1897	1896	272,670	$27,000	$27,000
Hampshire St	City Stable, sheds and scales, including old police station	1885	.....	72,661	30,000	16,000
E. S. Norfolk St.	Yard and pound	.....	.....	34,650	10,400	.....
River St	Yard and wharf	.....	.....	41,546	17,000	.....
Acton, Mass	Land, gravel bank	.....	1896	.....	3,000	.....
Main St	Land and Incinerator plant	1908	.....	93,424	31,900	18,000
					$119,300	$61,000

Total valuation of real estate $180,300

PERSONAL PROPERTY

72 horses	$14,000 00
53 watering carts	13,000 00
60 single and double carts	5,200 00
101 sets harness	2,500 00
Miscellaneous buggies, sleighs, pungs, plows, wagons, etc.	2,500 00
3 bicycles	50 00
5 steam rollers	11,000 00
1 scarifier	450 00
Miscellaneous tools, road machines, pick-up sweepers, scrapers, brooms, waste barrels, push carts, etc.	9,000 00
Amount carried forward	$57,700 00

Amounts brought forward	$57,700 00	
Stone-crushing plant, Raymond Street	5,000 00	
Stone-crushing plant, Hampshire Street	5,000 00	
Furnace and boiler, incinerator	12,000 00	
10 Shadbolt carts	3,300 00	
2 Watson carts	300 00	
Miscellaneous lumber, iron, tools, etc.	2,000 00	
130 feet straight edgestone	72 15	
40 feet circle edgestone	28 00	
75,000 granite paving blocks, seconds	1,875 00	
7,000 sidewalk bricks	88 55	
13,500 vitrified bricks	391 50	
44 feet granite flagging	32 12	
200 tons field stone	150 00	
100 tons crushed stone	110 00	
6 barrels cement	9 12	
12 tons coal	54 92	
		$88,111 36
Total		$268,411 36

ELECTRICAL DEPARTMENT

STREET LIGHTING

Equipment

361 lamp posts	$3,610 00	
Office furniture	275 00	
Stock on hand (old and disused)	100 00	
Automobile	950 00	
		$4,935 00

BRIDGE DEPARTMENT

PERSONAL PROPERTY

Cambridge and Boston Bridges

Harvard Bridge	$750 00	
Prison Point Bridge	940 00	
River Street Bridge	500 00	
North Harvard Bridge	40 00	
Western Avenue Bridge	60 00	
Cambridge Bridge	100 00	
		$2,390 00

WATER WORKS

Land in Cambridge	$190,400 00	
Buildings	86,800 00	Assessors
Personal Property	216,600 00	
		$493,800 00

REAL ESTATE AND PERSONAL PROPERTY AT HOBBS BROOK

Value of land	$246,563 30	
Gate houses	6,710 40	
Keeper's house and stable	5,000 00	
Dams	132,297 73	
Personal property	63 00	
		$390,634 43

REAL ESTATE AND PERSONAL PROPERTY AT PAYSON PARK

Value of land	$48,168 55	
Tool house	300 00	
Reservoir	287,000 00	
Personal property	30 00	
		$335,498 55

REAL ESTATE AND PERSONAL PROPERTY AT STONY BROOK

Value of land	$138,080 73	
Keeper's house and stable	2,000 00	
Dam	289,000 00	
Personal property	396 00	
		$429,476 73

VALUATION OF

Main pipes	$682,457 82	
Supplies	234,286 52	
Boxes	14,385 25	
Fountains	5,587 25	
Gates	39,315 86	
Hydrants	53,199 50	
Ice water fountains	3,000 00	
Meters	58,889 73	
Standpipes	1,800 00	
Sanitaries	1,200 00	
Broad Canal conduit	22,300 00	
Payscn Park line	198,000 00	
Stony Brook line (one-half in use)	118,500 00	
Hobbs Brook conduit, second section	574,968 23	
		2,007,890 16
		$3,657,299 87

SCHOOLHOUSES.

	Feet of Land.	Purchase of Land.	Erection of Buildings.	Valuation of Land.	Valuation of Buildings.
Agassiz	19,689	1874	1875	$8,000	$18,000
Boardman	10,018	1866	1868	4,000	13,500
Bridge	4,646	1836	1836	1,400	.....
Corlett	10,000	1880	1880 Purchased.	2,500	2,500
Cushing	14,787	1880	1880 Purchased.	2,800	3,000
Ellis	25,700	1897	1898	6 000	50,000
Felton	15,090	1847	1848	5,000	10,000
Fletcher	24,364	1902	1903	7,400	70,000
Gannett	15,434	1876	1886	4,000	12,000
Wellington	27,673	1875	1884	9,200	133,000
Gore	9,900	1871	1871	4,000	36,000
Harvard	20,494	1870	1871–1899	12,000	65,000
High	74,366	....	1891	44,425	220,000
Houghton	20,306	1904	1904–1905	8,100	90,000
Kelley	25,536	1900	1902	10,000	80,000
Lassell	10,000	1880	1880	3,000	8,000
Latin	79,579	1894	1897	47,575	225,000
Lowell	12,033	1883	1883	3,600	7,000
Merrill	37,828	1864	1864	19,000	45,000
Morse	25,650	1889	1890	7,000	73,000
Otis	8,270	1857	1859	4,000	20,000
Parker	12,319	....	1893	7,000	15,000
Peabody	21,813	1887	1888–1898	10,900	68,000
Putnam	14,400	1825	1889	12,000	65,000
Reed	12,000	1868	1868	1,200	4,000
Rindge M. T	97,128	....	1887	60,000	141,000
Riverside	11,198	1868	1868	3,500	5,500
Roberts	16,400	1898	1898	7,200	48,000
Russell	33,073	1895	1896	6,000	40,000
Shepard	14,755	1855	1856–1873	10,000	20,000
Sleeper	21,284	1894	1894	5,000	29,000
Tarbell	19,500	1878	1882	4,900	10,000
Taylor	25,278	1894	1895	7,100	36,000
Webster	25,839	1866	1873–1885	9,000	140,000
Willard	20,079	1869	1870	5,000	25,000
Wyman	14,347	1871	1871–1886	4,000	6,000
Fresh Air	10,296	1910	1910	3,600	1,200
Sargent (lot)	9,995	1838	.....	5,000	.....
				$374,400	$1,834,700

SCHOOL DEPARTMENT

PERSONAL PROPERTY.

Text books	$39,354 61
Desk and reference books	1,840 73
Apparatus and furnishings and machinery	21,560 95
Furniture and furnishings	122,124 15
Stock on hand in storeroom	9,044 73
Total	$193,955 17

PUBLIC LIBRARY

REAL AND PERSONAL ESTATE

141,666 feet of land, as per assessors' books	$85,000 00	
Library building, as per Assessors' books	145,000 00	
		$230,000 00
Estimated valuation of books in the library	$73,000 00	
Estimated valuation of interior furnishings	8,000 00	
Estimated valuation of books in the East Cambridge Branch Library	3,000 00	
Estimated valuation of furnishings in the East Cambridge Branch Library	475 00	
Estimated valuation of books in the North Cambridge Branch Library	3,800 00	
Estimated valuation of interior furnishings in North Cambridge Branch Library	1,400 00	
		89,675 00
		$319,675 00

The lot (about 590x240 feet) occupied by the library building is bounded by Broadway, Irving, Cambridge and Trowbridge Streets. The land and building were presented to the City of Cambridge by Mr. Frederick H. Rindge in June, 1889, on the completion of the building, which was begun in the autumn of 1887. In 1894 a wing was added to the building at a cost to the City of $20,000, and in 1902 an addition to the stack was made at an expense of about $30,000.

The trustees of the Library also hold the following funds, invested in the bonds of the City of Cambridge:

Fay Fund schoolhouse loan bond, No. 254, due 1st August, 1918, at 3½ per cent.		$1,000 00
Cummings Fund, water loan bond, No. 38, due 1st July, 1909, 4 per cent.		2,000 00
Citizens' Subscription Fund, invested as follows:		
Sewer loan bond, No. 7, due 1st May, 1910, 4 per cent.	$5,000 00	
Sewer loan bond, No. 47, due 1st October, 1925, 4 per cent.	500 00	
		5,500 00
William E. Saunders Fund, invested as follows:		
Building loan bond, No. 544 due, 1st April, 1923, 3½ per cent.	$3,000 00	
Street loan bond, No. 545, due 1st April, 1923, 3½ per cent.	4,000 00	
Deposited in Cambridgeport Savings Bank	465 78	
		7,465 78
James A. Woolson Fund, invested as follows:		
City of Cambridge Park loan bond, No. 701, due 1st April, 1945, 3½ per cent.		5,000 00
		$23,965 78
Edward H. Whorf Fund, invested as follows:		
3 American Tel. & Tel. Co. bonds		3,000 00

PARK DEPARTMENT

LAND

	Square Feet	Value
River Parkway:		
Section A	395,174	$592,761 00
" B	859,000	2,013,750 00
" C	583,082	174,924 60
" D	1,668,709	200,245 08
" E	77,101	77,101 00
" F	605,084	450,000 00
" G	699,948	560,000 00
" H	62,858	31,500 00
Cambridge Field	528,154	264,000 00
Rindge Field and Nursery	501,729	100,000 00
East Cambridge Embankment	349,828	174,000 00
Commons and Squares:		
Garden Street, Massachusetts Avenue and Waterhouse Street	370,784	370,000 00
Massachusetts Avenue, Kirkland Street and Cambridge Street	33,357	66,000 00
Massachusetts Avenue and Peabody Street	23,073	46,000 00
Massachusetts Avenue and Holmes Place	20,956	42,000 00
Massachusetts Avenue and Waterhouse Street	13,180	13,000 00
Broadway Common	107,181	54,000 00
Fort Washington	42,123	10,500 00
Dana Square	33,531	12,000 00
Hastings Square	30,000	10,500 00
Winthrop Square	11,565	23,000 00
Arsenal Square	3,189	3,100 00
Pleasant and River Streets	1,569	1,200 00
Pleasant Street and Western Avenue	1,372	1,000 00
Massachusetts Avenue and Arrow Street	872	1,700 00
Harvard Street near Prospect Street (Stearns Schoolhouse Lot)	10,050	5,000 00
Longfellow Park	93,618	56,000 00
Washington Elm	886	960 00
Mill Pond Property, River Street, near Putnam Avenue:		
Available as a playground	91,452	21,000 00
Remaining area	27,614	6,200 00
Total		$5,381,441 68
Buildings		122,100 00
Equipment		3,600 00
		$5,507,141 68

CITY PROPERTY

NOT USED BY ANY DEPARTMENT

27,641 square feet Mill Pond Property included in Park Department schedule.

14,317 square feet North Side Centre Street Dana Schoolhouse

	Assessors' Value
Lot	$6,400 00
13,690 square feet Northwest corner Main and First Streets	17,200 00
Total	$23,600 00

SCHEDULE B

No. X

EXEMPTED PROPERTY

The following is a schedule of property used for religious, charitable and educational purposes, and exempt from taxation by law, including property owned by the County of Middlesex, not including that owned by the City of Cambridge, as shown on the Assessors' Books, March 31, 1911:

EXEMPTED PROPERTY

Name of Corporation	Description of Property	Real Estate	Valuation Personal
Avon Home	Building	$50,000 00	$169,626 89
Baptist Home	House and Stable	21,500 00	44,996 98
Bishop, Leverett J., Wellington Bears, Hector McDonald, Geo. McDougall and William C. Abbott, Trustees	Church	4,600 00	
Board of Church Extension of the Church Extension of the African M. E. Church	Church	8,900 00	
Broadway Baptist Church	Church	38,000 00	
Buckingham School, The	Schoolhouse	11,700 00	4,397 45
Burton, Joseph F., Edwin J. Sheffield and Charles A. Swinerton, Trustees	Lot	3,900 00	
Cambridge Homes for Aged People	Building	80,000 00	140,293 21
Cambridge Hospital	Buildings	237,000 00	309,289 79
Cambridge Masonic Hall Association	Land	15,200 00	1,587 51
Cambridge Relief Hospital	2 Houses	13,500 00	3,588 35
Cambridge School for Girls Incorporated—The School	Building	18,500 00	6,063 83
Cambridge Social Union	House and Hall	25,500 00	2,000 00
Cambridge Visiting Nursing Association	House	9,500.00	1,196 59
Cambridge Young Men's Christian Association	Building	149,000 00	16,460 00
Cambridge Young Women's Christian Association	Buildings	41,300 00	10,346 75
Cambridgeport Unitarian Society	Church	26,000 00	
Christ Church, Episcopal	Chrch. & Par. Ho.	50,000 00	
Church of the Ascension	Church	9,000 00	
Commonwealth of Massachusetts	Metropolitan Park Buildings	337,900 00	
Congregation Beth Israel of Cambridge	Synagogue	17,600 00	
East End Union Mission Church	Church	6,000 00	
Episcopal Theological School, Trustees of	Buildings	355,700 00	423,649 81
Epworth M. E. Church	Church	87,200 00	
First Baptist Church	Church	100,000 00	
First Church of Christ Scientists in Cambridge, Massachusetts	Land	9,600 00	
First Church of the Evangelical Association of North America	Church	7,900 00	
First Evangelical Congregational Society	Church	52,000 00	
First Free Baptist Church of Cambridge	Church	13,700 00	
First Parish Church, Unitarian	Church	100,000 00	
First Reformed Presbyterian Church of Cambridge	Church	9,600 00	
First Swedish Baptist Church of Cambridge	Church	8,200 00	
First United Presbyterian Church of Cambridge, Trustee	Church	11,100 00	
Amounts carried forward		$1,929,600 00	$1,133,497 16

EXEMPTED PROPERTY—Continued.

Name of Corporation	Description of Property	Valuation Real Estate	Valuation Personal
Amounts brought forward		$1,929,600 00	$1,133,497 16
First Universalist Society of Cambridge	Church	31,300 00	
Grace M. E. Church	Church	20,000 00	
Harvard St. M. E. Society	Church	30,000 00	
Holy Ghost Hospital for Incurables	Hospital	178,000 00	9,200 00
Immanuel Baptist Church	Church	28,000 00	
Lampoon Club			8,806 24
Lamson House, The	House	7,000 00	10,312 06
Longfellow Memorial Association			20,268 99
Marist Fathers of Boston	Church & Sch. ho.	63,700 00	1,500 00
Massachusetts Avenue Baptist Church and Harlow H. Rogers for apportioned sewer assessment and Harlow H. Rogers for tax	Church	20,500 00	
Massachusetts Baptist Convention, Union Baptist Church	Church	18,400 00	
Massachusetts College of Osteopathy	House	24,000 00	3,000 00
Massachusetts Association for Promoting the Interests of Adults' Blind—Trustees of	Buildings	15,900 00	1,088 04
Middlesex, County of	County Bldgs.	1,369,500 00	50,000 00
Morse, Asa P., Heirs of	Church	8,200 00	
Mt. Auburn Cemetery Corporation	Cemetery	50,000 00	
North Avenue Baptist Church	Church	76,300 00	
North Avenue Congregational Society	Church	43,600 00	
Old Cambridge Baptist Society	Church	171,000 00	
Pilgrim Congregational Church	Church	39,300 00	
President and Fellows of Harvard College	Buildings	7,492,100 00	19,053,394 77
Prospect Union Association	Building	27,300 00	15,951 44
Radcliffe College	Buildings	627,100 00	823,470 35
Roman Catholic Archbishop of Boston	Buildings & Lots	399,600 00	
Roman Catholic Cemetery	Land	30,200 00	
Rush African M. E. Zion Church	Church	7,100 00	
Sacred Heart School Association	Chch. & Sch. ho.	162,500 00	4,285 00
St. John's Literary Institute	Hall & Stores	24,700 00	4,192 44
St. Mary's Parochial School	Buildings	245,000 00	30,000 00
St. Paul's Church, Roman Catholic	Church	90,000 00	
St. Paul's Roman Catholic School Association	School Buildings	140,200 00	4,000 00
St. Peter's Parish Hall Corporation	Buildings	64,600 00	
St. Phillip's Episcopal Church	Church	4,300 00	
Salvation Army of Massachusetts	House		200 00
Shepard Congregational Society	Church	144,000 00	
Stratton, Charles F., Allan K. Sweet and Edwin S. Chapin, Trustees	Building	7,100 00	101 25
Swedish Evangelical Missionary Church of Cambridge	Church	8,600 00	
Swedish Evangelical Lutheran Augustana Church	Church	18,100 00	
Amounts carried forward		$13,616,800 00	$21,173,267 74

Exempted Property—Concluded.

Name of Corporation	Description of Property	Valuation Real Estate	Valuation Personal
Amounts brought forward		$13,616,800 00	$21,173,267 74
The Corporation of the New Church Theolcgical School	Chapel & Bldgs.	$94,000 00	169,697 00
Third Universalist Society	Church	44,800 00	
Trinity M. E. Church	Church	41,300 00	
Trustees of Andover Theological Seminary	Lot	62,000 00	1,104,876 27
Trustees of the Donations to the Protestant Episcopal Church in the Diocese of Massachusetts, St. Peter's Church	Church	19,200 00	
Trustees of Donations of the Protestant Episcopal Church	Church	96,200 00	
Wheelwright, John T. and Roger L. Scarfe and Arthur H. Weed, Trustees	Lampoon Bldg.	12,000 00	
Wood Memorial Church, Congregational	Church	34,700 00	
Totals		$14,032,000 00	$22,477,841 01

RECAPITULATION

	Real Estate	Personal
Benevolent	$197,400 00	$26,908 00
Charitable	627,600 00	691,179 42
Literary	9,332,600 00	21,506,856 59
Religious	2,062,800 00	169,897 00
Scientific	24,000 00	3,000 00
Miscellaneous	1,787,600 00	50,000 00
Totals	$14,021,000 00	$22,447,841 01

REPORT OF THE BOARD OF HEALTH

JANUARY 1, 1911.

To the Honorable, the City Council, of the City of Cambridge, Mass.:

In compliance with Section 11, Chapter 75 of the Revised Laws, the undersigned submit the report of the Board of Health for the year ending December 31, 1910.

A new set of regulations went into effect the first of the year. Many of the changes and additions, especially those pertaining to the sale and care of food, have proved to be of value.

By an Act of Legislature, every department of milk inspection throughout the State has been made a part of its respective health department. In this city the closer relationship thus established has proved to be an advantage, particularly in the inspection of stores.

The matter of garbage collection has received considerable attention during the year. Although this work is not under the control of the Board of Health, yet it is a matter closely affecting the health of the community; and in September the Board of Health, in conjunction with the Overseers of the Poor, petitioned your honorable body to give the latter department appropriation for additional teams and men. Enough was granted for one additional team. This was a move in the right direction, but not adequate.

The greatest progress made in any single line is in the appropriation granted for the erection of the contagious hospital, for which the Board of Health has been striving for many years. It is hoped that when the time comes around for the next annual report, the hospital may be demonstrating its value to the city and its people.

Much has been done, as in former years, in the line of house and yard inspection (both in investigation of complaints and in routine work by the sanitary inspectors); but the Board feels that the time has arrived when a thorough and systematic inspection of houses and surroundings should be made. This will require the co-operation of the property owners and the citizens,

and the Board feels that, if this could be brought about, much benefit would result in the line of rectifying poor drainage, and unsanitary and damp conditions surrounding certain houses. This might be accomplished better by taking a portion of the city each year, so that the added burden would not be felt.

Following are the detailed reports of the various sub-divisions of the department.

ELIE H. LAPIERRE, *Chairman,*
JEREMIAH S. SULLIVAN,
PATRICK J. FINNIGAN, M.D.,
Board of Health.

EXPENDED FOR SALARIES.

January 1—December 31, 1910.

Medical Inspector	$1,500 00	
Bacteriologist	1,080 00	
Clerk	1,219 71	
Secretary	813 11	
Social Worker	795 00	
Sanitary Inspectors (2)	2,032 94	
Plumber	1,016 47	
Driver	887 29	
Inspector of Provisions	1,219 71	
School Nurse	914 79	
School Inspectors	1,856 36	
		$13,335 38

EXPENDED FOR GENERAL EXPENSES.

January 1—December 31, 1910.

Scarlet fever (board and care)	$6,199 05	
Tuberculosis (board and care)	800 48	
Typhoid fever (board and care)	430 00	
Reimbursement of other cities and towns and of the Commonwealth	4,958 45	
Burning of animals	92 50	
Car tickets	550 00	
Directories	6 50	
Disinfecting supplies	351 14	
Express and freight	10 89	
Harness, wagon and ambulance repairs and maintenance	120 85	
Horse board, storage and hire	433 00	
Horse shoeing, etc.	56 50	
Ice	25 15	
Laboratory supplies	186 94	
Printing, postage, stationery and office supplies	638 75	
Public sanitaries	4 06	
Publishing new Regulations	231 25	
Serving notices	6 24	
Telephones	150 72	
Incidentals	62 29	
		$15,314 76

EXPENDED FOR DIPHTHERIA HOSPITAL.

January 1—December 31, 1910.

Salary of:			
Physician	$1,200 00		
Matron	752 00		
Nurses	1,440 00		
Houseman	748 75		
Cook	310 29		
Laundress	318 00		
House servant	265 00		
		$5,034 04	
Fuel		179 60	
Gardening and garden supplies		13 18	
Gas		80 44	
Groceries and provisions		1,311 32	
Household supplies and furnishings		86 91	
Ice		50 53	
Medical and nursing supplies		162 66	
Milk		325 12	
Repairs		27 49	
Stationery and postage		5 28	
Telephone.		62 39	
Incidentals		40 02	
			$7,378 98

EXPENDED FOR TUBERCULOSIS HOSPITAL.

January 1—December 31, 1910.

Salary of:			
Physician	$999 96		
Matron	812 26		
Nurses	3,024 26		
Caretaker	636 00		
Cook	382 00		
Assistant cook	316 28		
Dishwasher	316 29		
Laundress	339 10		
Scrubwoman	371 00		
		$7,197 15	
Belmont Water Department		356 89	
Electric light		217 27	
Express		7 78	
Fuel		764 92	
Gardening and garden supplies		20 55	
Groceries and provisions		4,156 74	
Household supplies and furnishings		482 03	
Ice		121 08	
Medical and nursing supplies		415 31	
Milk		1,992 04	
Repairs and alterations		285 45	
Stationery and postage		22 78	
Telephone		71 55	
Incidentals		65 24	
			$16,176 78

RECEIPTS.

January 1—December 31, 1910.

Board paid directly by patients:			
Diphtheria	$465 43		
Scarlet fever	418 35		
Tuberculosis	2,081 37		
Typhoid fever	5 00		
		$2,970 15	
Reimbursement from other cities and towns, and from the Commonwealth:			
Diphtheria	$2,412 95		
Scarlet fever	4,345 60		
Tuberculosis	3,337 27		
Typhoid fever	196 72		
		$10,292 54	
Miscellaneous		5 13	
			$13,267 82

EXPENDED FOR MILK AND VINEGAR.

January 1—December 31, 1910.

Salaries	$2,000 00	
General Expenses	258 86	
		$2,258 86

MODIFIED MILK.

January 1—December 31, 1910.

Expenditures	$1,163 71
Receipts	516 89

KITTIE L. MAGOUN,
Secretary.

VITAL STATISTICS.

DEATH RATE PER 1,000 LIVING FROM ALL CAUSES
Population, 104,839

1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
17.01	15.51	15.77	15.02	15.56	15.77	15.28	15.71	14.97	15.43

Male death rate for 1910, 16.15.

Female death rate for 1910, 14.74.

The mean annual death rate for the ten years, 1901 to 1910 inclusive, is 15,603.

The figures given for the population are those of the United States Census of 1910.

In calculating death rates, the deaths of non-residents occurring in the city are excluded, and the deaths of residents, wherever they occurred, are included.

The death rate for the year just passed is usually a little below the correct rate, as the returns of the deaths of some residents which occurred at a distance from home may not be received till after the report has been made up. This error is corrected in the next annual report.

Table A gives the causes of death by ages in accordance with the International Classification of Causes of Death.

Table B gives the number of cases reported, the morbidity per 1,000 living, the death rate per 1,000 living, and the death rate per 100 cases reported of diphtheria, scarlet fever, measles and typhoid fever for the years 1901 to 1910 inclusive.

Table C gives the death rates per 1,000 living for cancer, diarrheal diseases, whooping cough, bronchitis, pneumonia and tuberculosis for the years 1901 to 1910 inclusive.

BRADFORD H. PEIRCE, M.D.,

Medical Inspector.

CAUSES OF DEATH	Non-Residents	Under 1		1 to 2		2 to 3		3 to 4		4 to 5		Total Under 5		5 to 10		10 to 15		15 to 20		20 to 30		30 to 40		40 to 50		50 to 60		60 to 70		70 to 80		80 to 90		Over 90		Total		Total Excl. Non-Res.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
I. GENERAL DISEASES																																				
1. Typhoid Fever	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1	...	...	1	2	1	2	1	1	...	2	1	...	...	...	...	...	...	8	4	13
2. Exanthemutous Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Malarial Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Smallpox	...	1	...	2	...	...	...	1	...	1	...	4	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
6. Measles	...	...	...	1	2	...	...	1	...	1	...	5	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
7. Scarlet Fever	...	2	1	1	1	...	...	...	...	...	...	4	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
8. Whooping Cough	...	...	2	1	1	4	2	1	1	5	1	11	7	3	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	4	25
9. Diphtheria (and Croup)	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	1	...	...	...	1	3	4	4
10. Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Miliary Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. Cholera Nostras	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	1	2	3	...
14. Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Plagus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Yellow Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Leprosy	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	3
18. Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Other epidemic diseases	1	1	...	...	...	1	...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	6	1	9
20. Septicæmia (and purulent infection)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21. Glanders and Farcy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Anthrax (malignant pustule)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Rabies	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Actinomycosis, Trichinosis, etc.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25. Pellagra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26. Tuberculosis of the Larynx	08	20	...	3	2	2	1	1	...	...	1	7	7	2	1	3	1	5	13	10	20	18	17	22	14	7	5	5	4	1	...	...	1	...	80	55	102
27. Tuberculosis of the Lungs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	1	18
28. Tuberculous Meningitis	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	3	4
29. Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	2	1
30. Pott's Disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
31. Tuberculous Abscess	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32. White Swelling	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	3	1	4
33. Tuberculosis of other organs	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	4
34. General Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
35. Scrofula	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
36. Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1
37. Gonorrhea of the Adult	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
38. Gonorrhea in Children	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
39. Cancer (or Malignant Tumor) of Mouth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	2
40. Cancer of Stomach and Liver	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	3	4	3	2	3	1	2	...	12	18	30
41. Cancer of Intestines and Peritoneum	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	5	2	3	5	1	1	...	...	6	11	17
42. Cancer of Genital Organs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	5	...	2	4	...	...	...	...	10	10	20
43. Cancer of Breast	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	1	...	...	...	...	...	8	8
44. Cancer of Skin	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	1	...	...	...	2	2	5
45. Cancer of other organs	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	...	...	2	...	...	...	...	...	2	6	8
46. Tumor (non-malignant and excepting those of female genital organs)	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
47. Acute Articular Rheumatism	...	1	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	5
48. Chronic Rheumatism and Gout	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	2	1	3
49. Scurvy	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
50. Diabetes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	1	2	...	2	...	...	1	...	...	...	...	5	6	11
51. Exophthalmic Goitre	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	1	2
52. Addison's Disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1
53. Leukæmia	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	1	2
54. Anæmia, Chlorosis	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	3	4
55. Other general diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
56. Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	1	...	2	...	...	...	...	...	...	5	1	6
57. Lead Poisoning	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
58. Other trade intoxications	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
59. Other chronic poisonings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	1
II. DISEASES OF THE NERVOUS SYSTEM																																				
60. Encephalitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	1
61. Meningitis, simple	...	...	1	3	4	...	2	...	1	...	...	7	3	...	1	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	3	1	14	14
61a. Meningitis, Epidemic Cerebro Spinal	...	...	1	1	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	4	4
62. Locomotor Ataxia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1
63. Other Diseases of the Spinal Cord	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	4	2	7	7
63a. Acute Anterior Polio Myelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
64. Apoplexy	3	...	...	2	...	...	...	...	...	...	...	2	2	...	...	1	...	4	5	2	11	9	13	14	7	15	3	14	1	...	a41	59	103	103
65. Softening of the Brain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
66. Paralysis (undefined)	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	4	1	1	...	...	1	...	...	...	9	7	16	8
67. General Paralysis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	2	...	3	...	1	...	...	...	...	...	6	2	8	8
68. Other forms of Mental Disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
69. Epilepsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	1	...	...	...	...	...	...	2	4	6	6
70. Convulsions (non-puerperal)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
71. Convulsions of Children	...	...	6	2	...	1	1	...	...	...	...	7	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
72. Tetanus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
73. Chorea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
74. Other Diseases of Nervous System	...	1	1	...	...	1	...	...	...	...	...	1	1	...	...	1	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	3	1	6	6
75. Diseases of the Eye and its Annexa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
76. Diseases of the Ear	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III. DISEASES OF THE CIRCULATORY SYSTEM																																				
77. Pericarditis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
78. Endocarditis, Acute	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	1	2	1	2	3	6	1	2	2	...	2	...	2	...	...	...	...	...	8	7	16	16
79. Organic Diseases of Heart	4	5	...	1	...	...	1	...	...	...	...	1	1	1	...	1	2	1	2	3	6	6	2	7	8	16	12	10	28	22	14	6	11	...	...	79	85	169
80. Angina Pectoris	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	1	3	...	2	...	1	1	...	8	2	10	10
81. Diseases of Arteries	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	1	2	3	6	7	5	11	...	12	22	34	34
82. Embolism and Thrombosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	1	...	...	...	2	7	9	9
83. Diseases of Veins	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
84. Diseases of Lymphatic System	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
85. Hemorrhages (except of lungs)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	3	...	3
86. Other Diseases of Circulatory System	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IV. DISEASES OF THE RESPIRATORY SYSTEM (Except Tuberculosis)																																				
87. Diseases of Nasal Fossæ	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
88. Diseases of the Larynx	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	3	3
89. Diseases of the Thyroid Body	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
90. Acute Bronchitis	...	1	5	2	1	1	1	...	...	1	1	8	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	12
91. Chronic Bronchitis	...	1	...	...	...	...	...	...	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...	3	...	2	4	2	1	1	...	...	...	10	7	18	18
92. Broncho-Pneumonia	2	12	19	5	4	2	1	1	...	27	12	1	1	...	...	...	...	...	...	1	...	...	...	1	...	2	2	1	3	1	4	...	...	9	16	56	56
93. Pneumonia	5	5	9	15	8	5	2	...	1	2	20	20	2	1	1	...	...	3	2	13	12	10	9	11	8	14	17	5	13	5	4	1	63	69	172	172
94. Pleurisy	...	...	...	1	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	1	...	2	1	...	...	2	...	...	...	...	...	...	...	4	2	8	7
95. Congestion of Lungs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	4	1	...	...	...	...	5	2	7	7
96. Gangrene of Lungs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
97. Asthma	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2	2	2
98. Emphysema	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
99. Hemorrhage and other diseases of respiratory system (except Phthisis)	...	...	1	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	3	1	6	6
V. DISEASES OF THE DIGESTIVE SYSTEM																																				
100. Diseases of the Mouth	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
101. Tonsilitis and Diseases of the Pharynx	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
102. Diseases of the Esophagus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
103. Ulcer of Stomach	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	2
104. Gastritis and other Diseases of Stomach	1	2	9	4	2	1	...	...	...	...	11	5	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	1	...	3	...	...	...	3	5	21	21
105. Diarrhœa and Enteritis (under 2 years)	...	...	48	44	7	7	...	...	...	...	96	51	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	2	...	106	106
106. Diarrhœa and Enteritis (2 years and over)	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	1	1	2	...	3	1	2	...	2	...	...	1	...	1	...	...	9	6	16	16
107. Intestinal Parasites	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
108. Hernia and Obstruction of Intestines	2	...	2	3	...	...	...	...	...	...	2	3	...	2	1	...	...	...	2	...	1	1	2	1	3	...	...	...	...	...	...	...	...	5	9	19	19
109. Other Diseases of Intestines	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	...	1	2	4	4
110. Acute Yellow Atrophy of Liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
111. Hydatid Tumors of Liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
112. Cirrhosis of Liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1	1	1	...	...	...	...	...	...	3	5	8	8
113. Biliary Calculi	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	2	1	...	...	...	...	...	...	...	2	3	5	5
114. Other Diseases of Liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1	...	...	...	1	...

DISEASES DANGEROUS TO THE PUBLIC HEALTH.

There has been no marked falling off in the number of cases of disease dangerous to the public health reported to the Board of Health the past year. In fact the number has been about as low as we have reason to expect in a city of this size and population.

We have had more co-operation from the physicians this year than ever before.

Since the existence of the widespread epidemic of cholera in Europe we have been notified by the State Board of Health of immigrants destined to Cambridge from cholera stricken points. These persons have been followed up, and as yet no case of the disease has broken out here, due no doubt to the remarkable effciency of the Public Health and Marine Hospital Service.

Table B gives the number of cases reported and the death rates for Diphtheria, Scarlet Fever and Measles, corrected according to the figures given by the latest census.

Table D gives the cases of disease as reported each week.

Table E gives these cases as reported by wards each month.

Table F gives the cases according to age and sex distribution.

TABLE B

		1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Diphtheria	Number of cases reported	615	460	322	330	350	517	323	422	278	310
	Morbidity per 1,000 living	6.61	4.88	3.38	3.42	3.59	5.23	3.22	4.15	2.69	2.96
	Death rate per 1,000 living	0.65	0.36	0.30	0.26	0.27	0.26	0.19	0.34	0.20	0.24
	Case death rate, percentage	9.59	7.60	8.69	7.57	7.71	5.02	5.88	8.29	7.55	8.06
Scarlet Fever	Number of cases reported	101	199	188	135	150	166	414	495	365	349
	Morbidity per 1,000 living	1.08	2.11	1.97	1.40	1.53	1.68	4.13	4.86	3.53	3.33
	Death rate per 1,000 living	0.08	0.09	0.10	0.03	0.04	0.06	0.10	0.11	0.14	0.05
	Case death rate, percentage	7.92	4.52	5.31	2.22	2.66	3.62	2.41	2.22	3.84	1.43
Measles	Number of cases reported	562	407	80	481	112	631	60	1,197	542	287
	Morbidity per 1,000 living	6.04	4.32	0.84	4.99	1.14	6.38	0.60	11.76	5.25	2.74
	Death rate per 1,000 living	0.10	0.04	0.04	0.08	0.05	0.05	0.08	0.10	0.03	0.04
	Case death rate, percentage	1.76	0.98	5.00	1.66	4.46	0.79	13.33	0.83	0.55	1.39
Typhoid Fever	Number of cases reported	96	128	123	136	111	128	90	87	75	70
	Morbidity per 1,000 living	1.03	1.36	1.29	1.41	1.13	1.29	0.90	0.85	0.73	0.67
	Death rate per 1,000 living	0.10	0.18	0.13	0.22	0.19	0.19	0.10	0.11	0.10	0.12
	Case death rate, percentage	10.41	13.28	11.38	16.91	17.11	14.84	11.11	12.64	13.33	18.57

TABLE C

		1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Death Rates per 1,000 living	Cancer	1.03	0.83	0.75	0.87	0.77	0.83	0.77	0.81	0.66	0.86
	Diarrhoeal Diseases	1.05	1.04	1.17	1.20	1.08	1.03	0.94	1.32	1.12	1.19
	Whooping Cough	0.11	0.09	0.15	0.03	0.14	0.46	0.10	0.28	0.066	0.048
	Bronchitis	0.39	0.41	0.43	0.36	0.27	0.41	0.47	0.30	0.40	0.29
	Pneumonia	1.86	1.74	1.92	1.51	1.86	1.67	1.39	1.69	1.96	2.17
	Pulmonary Tuberculosis	2.07	1.90	1.76	1.96	1.75	1.58	1.68	1.36	1.46	1.58

TABLE D.

1910	Diphtheria	Scarlet Fever	Measles	Typhoid Fever	Pulmonary Tuberculosis	Other Forms Tuberculosis	Chicken Pox	Whooping Cough	Anterior Poliomyelitis	Epidemic Cerebro Spinal Meningitis	Ophthalmia Neonatorum	Totals
Jan. 1.....	1	2	....	....	2	.....	....	....	.....	.....	.....	5
Week Ending												
Jan. 8.....	5	4	2	4	5	1	....	3	.....	.....	.....	24
Jan. 15.....	6	4	4	....	7	.....	4	1	.....	.....	.....	26
Jan. 22.....	12	2	3	....	4	.....	4	....	.....	.....	.....	25
Jan. 29.....	15	7	3	1	14	.....	3	....	2	.....	.....	45
Feb. 5.....	14	10	1	....	5	.....	1	....	.....	.....	.....	31
Feb. 12.....	8	5	....	....	4	.....	3	....	.....	.....	.....	20
Feb. 19.....	4	2	4	3	7	.....	3	....	.....	.....	.....	23
Feb. 26.....	10	5	4	....	3	.....	1	....	.....	.....	1	24
Mar. 5.....	8	4	6	....	6	1	4	....	.....	.....	.....	29
Mar. 12.....	5	4	3	....	4	1	3	1	.....	.....	1	22
Mar. 19.....	12	1	7	....	8	2	5	....	.....	.....	.....	35
Mar. 26.....	9	5	8	1	4	.....	1	....	.....	.....	.....	28
Apr. 2.....	3	5	6	....	7	.....	1	....	.....	.....	.....	22
Apr. 9.....	10	5	6	1	7	1	1	....	.....	.....	.....	31
Apr. 16.....	10	1	10	2	10	.....	2	....	.....	.....	.....	35
Apr. 23.....	3	11	8	1	9	1	1	....	.....	.....	.....	34
Apr. 30.....	3	101	8	1	4	.....	1	....	.....	.....	1	119
May 7.....	8	32	18	2	5	.....	2	....	.....	1	.....	68
May 14.....	5	22	23	1	7	.....	5	....	.....	.....	.....	63
May 21.....	5	17	12	....	3	.....	2	1	.....	.....	.....	40
May 28.....	5	4	12	1	6	.....	3	1	.....	.....	.....	32
June 4.....	11	6	10	....	6	4	2	1	.....	.....	.....	40
June 11.....	9	5	8	1	6	.....	5	1	.....	.....	.....	35
June 18.....	6	7	7	1	7	.....	4	...	.....	.....	1	33
June 25.....	8	4	11	....	6	1	4	....	.....	.....	.....	34
July 2.....	5	....	5	....	2	.....	3	....	.....	.....	.....	15
July 9.....	6	2	8	1	4	.....	....	....	.....	.....	1	22
July 16.....	6	3	4	....	8	.....	....	....	.....	.....	.....	21
July 23.....	5	1	3	....	4	1	1	1	.....	.....	.....	16
July 30.....	2	....	2	3	3	.....	....	....	.....	.....	.....	10
Aug. 6.....	3	....	4	....	4	.....	1	....	.....	.....	.....	12
Aug. 13.....	4	....	2	1	6	.....	....	....	.....	.....	.....	13
Aug. 20.....	4	1	....	2	1	.....	....	....	.....	.....	.....	8
Aug. 27.....	6	1	4	1	4	.....	....	....	.....	.....	.....	16
Sept. 3.....	2	1	2	1	2	2	1	2	1	.....	.....	14
Sept. 10.....	....	1	....	1	4	1	....	....	.....	1	1	9
Sept. 17.....	3	2	1	5	2	.....	....	....	.....	.....	.....	13
Sept. 24.....	6	3	2	1	1	1	1	....	.....	.....	.....	15
Oct. 1.....	3	6	1	5	7	.....	....	....	.....	1	.....	23
Oct 8.....	4	5	....	3	9	.....	....	....	.....	.....	.....	21
Oct. 15.....	2	2	....	5	6	.....	1	....	.....	1	.....	17
Oct. 22.....	6	4	1	3	5	1	1	....	.....	.....	.....	21
Oct. 29.....	5	3	4	5	7	.....	1	....	.....	.....	.....	25
Nov. 5.....	3	3	6	5	4	.....	1	....	.....	.....	.....	22
Nov. 12.....	4	4	2	1	2	.....	2	....	.....	.....	1	16
Nov. 19.....	....	....	10	....	1	2	2	2	.....	.....	2	19
Nov. 26.....	6	4	1	3	6	.....	1	2	.....	1	.....	24
Dec. 3.....	2	9	6	2	7	.....	1	....	.....	.....	.....	27
Dec. 10.....	3	3	5	....	6	1	5	2	.....	.....	.....	25
Dec. 17.....	3	5	9	2	3	1	5	1	.....	.....	1	30
Dec. 24.....	6	6	10	....	2	.....	1	....	.....	.....	.....	25
Dec. 31.....	16	5	11	....	9	.....	1	....	.....	.....	.....	42
Totals	310	349	287	70	275	22	94	19	3	5	10	1444

TABLE E

DIPHTHERIA	1	2	1	1	1	1	.....	9	3	.....	5	3	2	28
	2	6	7	4	.....	2	1	.....	1	1	1	.....	4	27
	3	5	2	4	3	9	1	1	4	1	.....	.....	4	34
	4	3	2	1	2	2	2	.....	2	3	3	1	3	24
	5	1	.....	2	4	1	.....	.....	1	.....	2	1	.....	12
	6	10	8	7	5	4	2	2	3	1	1	.....	5	48
	7	9	4	5	1	1	6	2	1	.....	1	3	1	34
	8	1	1	3	6	3	11	1	1	1	2	1	1	32
	9	1	7	.....	3	.....	.....	.....	1	1	1	.....	2	16
	10	3	.....	.....	1	1	6	3	1	.....	1	1	4	21
	11.	3	2	5	2	2	5	3	1	4	.....	3	4	34
		44	34	32	28	26	34	21	19	12	17	13	30	310
SCARLET FEVER	1	.....	.....	3	7	6	.....	1	.....	.....	.....	.....	2	19
	2	.....	.....	.....	6	4	1	.....	.....	3	.....	5	5	24
	3	2	.....	1	5	7	3	.....	1	.....	.....	.....	3	22
	4	4	3	.....	6	10	.....	.....	.....	.....	.....	1	.....	24
	5	3	4	1	11	10	1	.....	.....	.....	2	3	.....	35
	6	.....	.....	2	14	8	4	.....	.....	.....	4	1	1	34
	7	2	3	4	15	5	2	.....	.....	1	1	1	3	37
	8	4	2	1	23	6	2	1	.....	.....	1	....	4	44
	9	4	4	2	12	4	1	.....	.....	4	1	1	2	35
	10	1	.....	.....	16	12	1	2	1	3	2	4	1	43
	11	1	4	3	5	6	4	2	.....	1	4	1	1	32
		21	20	17	120	78	19	6	2	12	15	17	22	349
MEASLES	1	1	.....	.....	1	5	3	3	2	1	10	7	11	44
	2	.....	1	.....	.....	11	4	3	.....	1	.....	2	3	25
	3	3	4	11	10	17	6	6	1	.....	.....	9	10	77
	4	1	.....	2	.....	5	6	6	6	.....	.....	.....	7	33
	5	2	.....	1	4	9	6	.....	1	.....	.....	.....	.....	23
	6	1	.....	1	6	10	.....	1	.....	2	.....	.....	3	24
	7	.....	1	1	1	8	3	1	.....	1	.....	.....	.....	16
	8	2	2	1	3	1	2	1	.....	.....	.....	1	1	14
	9	.....	.....	8	5	.....	.....	.....	1	.....	.....	.....	.....	14
	10	1	1	3	1	3	2	.....	.....	.....	.....	.....	.....	11
	11	2	.....	1	1	1	.....	.....	.....	.....	.....	.....	1	6
		13	9	29	32	70	32	21	11	5	10	19	36	287
TYPHOID FEVER	1	.....	1	.....	.....	.....	.....	1	2	.....	2	1	1	8
	2	.....	.....	1	1	1	.....	.....	1	.....	.....	.....	.....	4
	3	2	.....	.....	.....	1	.....	2	.....	2	2	1	.....	10
	4	.....	.....	.....	1	.....	1	.....	.....	1	.....	.....	.....	3
	5	.....	.....	.....	.....	.....	.....	.....	1	.....	2	1	.....	4
	6	.....	.....	.....	.....	1	1	.....	1	1	3	2	.....	9
	7	.....	.....	.....	1	.....	.....	1	1	3	.....	1	2	9
	8	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	2
	9	1	.....	.....	.....	.....	.....	.....	.....	.....	4	1	.....	6
	10	.....	1	.....	1	.....	.....	.....	.....	1	2	.....	.....	5
	11	2	.....	.....	1	1	.....	.....	.....	2	1	3	.....	10
		5	2	1	5	4	2	4	6	11	17	10	3	70
TUBERCULOSIS	1	2	1	1	7	4	3	.....	3	.....	2	3	.....	26
	2	1	1	4	4	3	.....	2	.....	1	2	.....	.....	18
	3	6	3	3	8	6	3	.....	2	6	7	2	6	52
	4	8	1	5	2	4	3	4	3	.....	7	2	2	41
	5	3	2	2	.....	4	1	.....	2	1	1	1	2	19
	6	6	2	3	3	1	4	1	4	3	2	2	7	38
	7	1	4	2	3	1	5	2	1	2	4	3	4	32
	8	3	1	.....	1	2	5	5	2	.....	4	2	.....	25
	9	3	1	2	2	.....	3	2	.....	1	1	.....	1	16
	10	1	.....	1	2	.....	.....	1	1	1	.....	1	2	10
	11	1	2	7	2	1	.....	3	.....	.....	2	1	1	20
		35	18	30	34	26	27	20	18	15	32	17	25	297
WHOOPING COUGH	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
	2	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	.....	3
	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
	4	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	5
	5	.....	.....	.....	.....	1	.....	1	1	.....	.....	.....	.....	3
	6	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	2
	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....
	8	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....
	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2
		4	.....	1	.....	2	2	1	2	.....	.....	4	3	19
CHICKEN POX	1	3	.....	5	2	3	1	.....	.....	.....	1	.....	.....	15
	2	1	.....	1	1	.....	.....	1	.....	.....	.....	1	.....	5
	3	.....	.....	.....	.....	.....	3	.....	.....	1	.....	.....	.....	4
	4	.....	1	2	1	1	2	.....	.....	.....	.....	.....	.....	7
	5	1	.....	.....	.....	2	2	.....	.....	.....	.....	.....	.....	5
	6	1	.....	1	1	5	2	.....	.....	.....	1	1	.....	12
	7	.....	4	2	.....	.....	.....	1	.....	.....	2	.....	10	19
	8	1	2	2	.....	1	3	.....	2	.....	.....	3	1	15
	9	4	.....	.....	.....	1	2	.....	.....	.....	.....	.....	1	8
	10	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	2
	11	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2
		11	8	14	5	14	15	2	2	1	4	6	12	94

TABLE F

		Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	Over 80	Age unknown	Total
DIPHTHERIA	M	....	8	12	17	19	49	17	4	8	4	....	....	....	....	....	....	138
	F	4	12	14	15	9	61	25	15	14	2	1	....	....	....	....	....	172
	P	4	20	26	32	28	110	42	19	22	6	1	....	....	....	....	....	310
SCARLET FEVER	M	1	4	5	16	18	66	33	14	8	8	....	2	....	....	....	....	175
	F	1	4	7	7	13	57	34	21	25	5	....	....	....	....	....	....	174
	P	2	8	12	23	31	123	67	35	33	13	....	2	....	....	....	....	349
MEASLES	M	7	11	9	17	18	59	12	3	8	2	....	....	....	....	....	....	146
	F	3	20	16	14	18	45	3	6	12	1	1	....	....	....	....	....	139
	P	10	31	25	31	36	a105	15	9	20	3	1	....	....	....	....	a1	a287
CHICKEN POX	M	2	2	3	3	4	25	3	1	1	....	....	....	....	....	....	3	49
	F	2	4	4	4	5	19	5	1	....	....	....	....	....	....	....	5	44
	P	4	6	a8	7	9	44	8	2	1	...	....	....	....	....	....	5	a94
WHOOPING COUGH	M	3	2	1	....	2	4	....	....	....	...	....	....	....	....	....	1	13
	F	1	1	2	1	....	1	....	....	....	...	....	....	....	....	....	....	6
	P	4	3	3	1	2	5	....	....	....	...	....	....	....	....	....	1	19
TYPHOID FEVER	M	....	....	....	....	1	3	6	1	12	10	3	3	....	....	....	....	39
	F	....	1	1	....	....	5	4	3	6	6	....	4	....	1	....	....	31
	P	....	1	1	....	1	8	10	4	18	16	3	7	....	1	....	....	70
PULMONARY TUBERCULOSIS	M	....	....	1	....	....	6	6	10	40	30	26	13	6	1	....	16	155
	F	....	....	....	....	....	1	3	16	40	24	19	4	3	....	....	10	120
	P	....	....	1	....	....	7	9	26	80	54	45	17	9	1	....	26	275
ANTERIOR POLIOMYELITIS	M	....	....	....	2	....	.....	....	....	....	...	....	....	....	....	....	....	2
	F	....	....	....	....	....	.....	....	....	....	1	....	....	....	....	....	....	1
	P	....	....	....	2	....	.....	....	....	....	1	....	....	....	....	....	....	3

a Includes a person of unknown sex.

DIPHTHERIA.

310 cases were reported this year, 32 more than last, but by no means a large number. Of the 310 cases, 123 or 39.6 per cent. were taken to the hospital, where the average daily number of patients was 6.2.

SCARLET FEVER.

This year shows a further slight reduction in the number of cases of this disease. There were 349 cases, 16 less than last year, and 156 less than the previous year.

The latter part of April a great increase in the number of cases occurred, nearly all of which were supplied with milk by the same dealer. Simultaneously a large number of cases developed in Boston and other neighboring cities, most of which were likewise supplied by the same milk dealer. The possibility of all the cases originating from the same milk was so striking that steps were taken immediately to overcome this as a source of contagion. The dealer pasteurized his daily output of milk and began an investigation which, as reported, failed to disclose any way in which the supply could have been infected.

(See accompanying chart. The line shows the number of cases reported each day. Sundays no cases are put on record. The shaded portion shows the onset of cases supplied with milk by the suspected dealer, the unshaded portion that of cases supplied by other dealers.)

Continued investigation failed to discover any other source of origin for this epidemic than the milk. Furthermore, as soon as sufficient time had elapsed for all persons already infected to develop the disease after regular pasteurization was begun, the new cases dropped to the usual number.

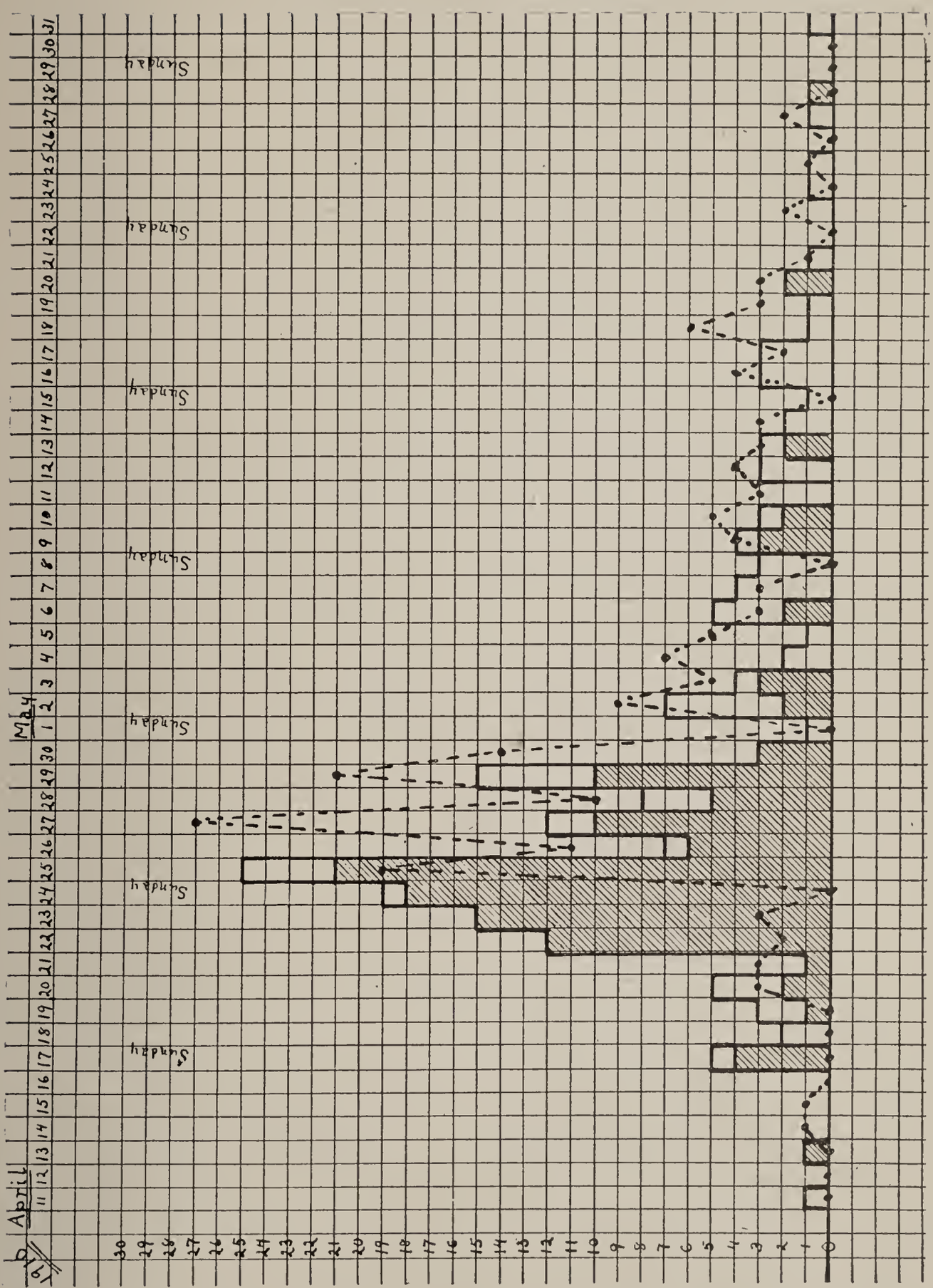
Several interesting facts came to notice during this outbreak. In a majority of the cases the peeling was very slight or absent. The average duration of quarantine was 38 days.

Of the 192 cases reported during this period, 3 were not scarlet fever.

Three of the 192 died.

There were 14 cases in 9 families in which the infection occurred from other members who had come down some time previously.

There were no instances in which the spread of the infection could be traced from one family to another.


April
May
Sunday

An unusual number of adults were attacked. The distribution among the schools is as follows:

Agassiz	6
Boardman	2
Buckingham	1
English High	4
Fletcher	5
Harvard	6
Houghton	4
Kelley	3
Lassell	1
Latin High	3
Merrill	1
Morse	10
Parker	3
Peabody	9
Putnam	3
Private	2
Rindge	2
Riverside	2
Roberts	2
Russell	2
Sacred Heart	1
Sleeper	3
St. Mary's	5
St. Paul's	5
St. Peter's	2
Taylor	1
Thorndike	1
Wellington	2
Willard	5
Under school age	38
Adults	58

The percentage of children under school age in this outbreak was 19.7, of school children 50, of adults 30.3.

The general distribution of cases throughout the city is well shown by the table of cases occurring in the schools. It is worth noting that the schools in which there are usually many cases when much scarlet fever exists had few cases, and the schools which ordinarily have few children out with this disease had more out during this epidemic. Many parents were much exercised by this fact and offered considerable criticism because the schools were not closed. To have done such a thing would not have helped the condition one bit.

From the first of June on we had less than the ordinary number of cases. In only one week did we have more than 7 reported, and then there were but 9.

MEASLES.

This year shows a further downward drop in the number of cases of measles, and ought to represent the bottom of the periodic wave. There were 287 cases reported, 255 less than last year. At no time were the cases reported with sufficient rapidity to resemble an epidemic.

It is quite probable that the number of cases reported is much below the actual number existing, chiefly for the reason that this disease is regarded as of such a trivial nature that physicians are not consulted.

TYPHOID FEVER.

There were only 70 cases of typhoid fever this year as against 75 in 1909. Not since 1891, when we had the same number, have we had so few as this year. All the cases were scattered and apparently more or less independent of one another. At no time, therefore, could we get at any one thing to say that it was causing a localized outbreak.

TUBERCULOSIS.

Two hundred and ninety-seven cases were reported this year. Of these 297, 275 were pulmonary, and 22 other forms of the disease. In 1909, 331 cases of pulmonary tuberculosis, and 11 cases of other forms were reported. The fading off in the number of cases reported this year is due almost entirely to the fact that a careful index of the cases is kept now, and all duplicate reports of a single case are thrown out at once.

The slightly increased death rate for pulmonary tuberculosis for the past two years shown in Table C does not signify by any means that the disease is progressing. It may be accounted for probably by the fact that during the past two years we have been caring for many more of our advanced cases right here in Cambridge instead of in other cities and towns.

It is interesting to note that, according to the reports of the Census Bureau, the death rate for tuberculosis in the United States, and particularly in Massachusetts, has been dropping steadily for the last fifty years.

OTHER INFECTIOUS DISEASES.

During the year 1910, there have been reported 94 cases of chicken pox, 19 cases of whooping cough, 3 cases of anterior poliomyelitis, 5 cases of cerebro-spinal meningitis, and 10 cases of ophthalmia neonatorum.

Although the general death rate for this year is slightly higher than that of 1909, there were 335 fewer cases of reportable disease recorded in spite of the fact that anterior poliomyelitis was added to the list of diseases dangerous to the public health.

BRADFORD H. PEIRCE, M.D.,

Medical Inspector.

BACTERIOLOGICAL LABORATORY.

The tables given below show the number and sort of examinations made in the Laboratory during the year 1910.

The number of cases of diphtheria reported to the Board was 310, or 32 more than in the year preceeding. Of these 310 cases 236, or 78 per cent., were confirmed by positive cultures in this laboratory, the same percentage as developed last year. To help prevent mistakes at culture stations the boxes of the diphtheria outfits are now sent out with a label "used" on the inside end, and the physicians have been asked to reverse the box in returning it for collection so that all used cultures may be plainly marked. So far only a rare physician or two has helped in this, but by another year the custom will probably have become more common. Mistakes at culture stations are still too frequent and I would suggest for your consideration the advisability of reducing the number of stations. We have a very large number in proportion to our population, and with a smaller number the service could be better controlled.

The number of cases of typhoid fever reported was 70, 5 less than the year before. Of this number 26, or 37 per cent., gave a positive Widal reaction in this laboratory. This is an increase of 10 per cent. in the percentage of positives, and could be brought much higher if we could have blood specimens sent in later in the disease. About half of the blood submitted is taken before the fifth day of the disease when it is very rare to get a reaction.

There were 666 examinations of sputa, a decrease of 180 from last year. Of these 666, 143 were from the Day Camp, leaving a decrease of 81 from the number submitted by physicians for diagnosis only.

DIPHTHERIA

	POSITIVE		NEGATIVE		TOTAL		TOTAL			
	Diagnosis	Release	Diagnosis	Release	Diagnosis	Release	Positive	Negative	No Growth	Grand Total
January	38	32	95	72	133	104	70	167	1	238
February	22	30	99	87	121	117	52	186	4	242
March	23	11	71	88	94	99	34	159	4	197
April	18	17	88	64	106	81	35	152	4	191
May	19	19	72	47	91	66	38	119	7	164
June	27	24	52	71	79	95	51	123	1	175
July	18	10	28	58	46	68	28	86	1	115
August	11	4	20	36	31	40	15	56	0	71
September	11	1	20	19	31	20	12	39	1	52
October	15	13	32	35	47	48	28	67	2	97
November	9	2	44	36	53	38	11	80	5	96
December	25	11	58	22	83	33	36	80	1	117
Total	236	174	679	635	915	809	410	1314	31	1755

	TUBERCULOSIS			TYPHOID			
	Positive	Negative	Total	Positive	Negative	Total	Grand Total
January	23	42	65	1	8	9	74
February	14	38	52	1	10	11	63
March	12	57	69	0	11	11	80
April	23	45	68	2	5	7	75
May	16	46	62	1	6	7	69
June	31	41	72	0	4	4	76
July	21	25	46	2	14	16	62
August	14	25	39	2	18	20	59
September	16	20	36	3	25	28	64
October	19	36	55	5	14	19	74
November	15	42	57	7	13	20	77
December	15	30	45	2	6	8	53
Total	219	447	666	26	134	160	826

Total examinations for the year, 2,581.

ALLAN F. BARNES, M.D.,
Bacteriologist to the Board of Health.

INSPECTION OF MILK AND VINEGAR

I have the honor to present the report of the Department of Milk Inspection for the twelve months ending December 31, 1910.

The total number of samples collected and examined was 5,015, as follows:

Number of samples of milk from wagons and stores	3,434
" " " brought in by citizens and milkmen	488
" " " of milk (bacteriological)	1,040
	4,962
Number of samples of vinegar	28
" " " " oleomargarine	25
	5,015

MILK

As in previous years the milk having the highest percentage of butter fat and total solids was supplied to this city during the months of January and December. During July, August and September, owing to exceedingly hot, dry weather, the percentage of milk below standard was greatest. At this season of the year the producers are interested in garden farming, which takes practically all their time, thus leaving the cattle to take care of themselves, forage for their food, fight the flies, and go for long periods without proper water. The result, therefore, necessarily must be anything but satisfactory.

From a chemical standpoint, however, the milk during the whole twelve months was superior to that during any previous twelve months. I think this was due to a great extent to the rigid bacteriological inspection which has been carried on vigorously. This work has long since passed the experimental stage, and I believe it to be one of the most important factors in promoting a clean, wholesome supply of milk for this city. Milk is sold in three ways, sealed bottles, dip tanks, and from the can. The last method of handling is, however, fast becoming obsolete.

During the year 3,922 samples were examined chemically, and 1,040 samples were examined bacteriologically. Of this number 394 were below the chemical standard, and 52 were above the standard allowed for bacteria. 3.56 was the average butter fat, and 12.68 the average total solids for the year.

During July, the lowest month in the year, the average butter fat was 3.49, the average total solids 12.20.

During December, the highest month of the year, the average butter fat was 3.96, and the average total solids 12.98.

COURT CASES.

Milk below standard	8
Milk of high temperature	2
Dirty cans and bottles	3
Misuse of milk bottles	2
Total	15
Convictions	11
Acquittals	4
Total	15
Fines	$95 00

The consumer should be protected from the fraud sometimes perpetrated by the milkman, the milkman requires and should obtain protection from the wholesaler, and the wholesaler should be protected from the producer. Pursuing this policy, each case of suspected fraud has been traced to its source before prosecution has taken place. In all cases where there has been any doubt as to intent, warnings have been sent and strict supervision maintained until the problem has been solved and the blame properly placed.

I will give an example to explain my position. Mr. A. was found to be selling milk containing formaldehyde, which is a preservative, and against the laws of the Commonwealth. Instead of prosecuting Mr. A., the records at the office were consulted, and it was found that Mr. A. was supplied with milk by Mr. G., from whom samples were taken immediately, with the same result. Mr. G. was notified and his dairies tested. One dairy (which was suspected by Mr. G. of being of doubtful quality) was withdrawn from the load the day before the collector took samples of the dairies, and no formaldehyde was found in the balance of the supply.

Mr. A. and Mr. G. are men of good reputation and highly respected. While they were liable to prosecution, and would undoubtedly have been found guilty had they been convicted, it would have injured their business and marked them as criminals, all on account of something of which they knew nothing, and over which they had no control. By following this fraud to the starting point, I feel that justice was done to all, and favor shown to none.

BACTERIOLOGY

The same system of classification has been followed in this branch of the work that was adopted last year, i.e.:

Samples	containing	100000	bacteria	or	less	per	c. c.	were	in Class A
"	"	100000	to 250000	bacteria	"	"	"	"	" B
"	"	250000	to 500000	bacteria	"	"	"	"	" C
"	"	500000	bacteria	and	over	"	"	"	" D

There were 1,040 bacteriological samples examined during the year. The number of samples containing pus and streptococci was considerably less than last year. While this improvement is encouraging, I believe it is possible to reduce the percentage still further, and I continue to urge the employment of a field representative to supervise the dairies and continue the farmers' education along the line of clean, careful production. While most farmers know how essential it is to use ice, it needs a man in the field with the power to enforce the law in this respect. Much good can be done if the right man works at the source of our supply, which cannot be accomplished by the inspector working among the dealers.

VINEGAR

Owing to the strict enforcement of the pure food laws by the State among the manufacturers, the 28 samples of vinegar examined at the laboratory during the past year were all of good standard quality and properly classified.

BUTTER AND OLEOMARGARINE

The dealers handling both butter and butterine have been under the same strict supervision as in previous years, and 25 samples have been examined.

There are 32 dealers licensed to sell oleomargarine until May 31, 1911, and they are all careful to observe the laws pertaining to the same.

MODIFIED MILK

Inasmuch as this department was placed under the direction of the Board of Health this year, its members continued the work carried on in previous years by the advisory board usually appointed by His Honor the Mayor.

The success of this enterprise was due principally to Miss Rena Schlesinger, who modified the milk, and the Misses Clark, Mackintosh, Macomber and Mott, nurses from the Cambridge Visiting Nursing Association, who distributed the milk at the stations.

One new station was opened at the Riverside Alliance House on Ballord place off Putnam avenue, and between River street and Western avenue, making the sixth station in Cambridge for the

distribution of modified milk to infants. It was unquestionably a benefit to all those who took advantage of this philanthrophy.

One child brought to the Cambridge Field station, July 4th, weighed 17 lbs., 3 oz. At the close of the season, September 19th, he weighed 22 lbs., a gain of 4 lbs. 13 ozs. in ten weeks.

I wish to call particular attention to the phenomenal record of these stations for the last season. Of the 150 infants who were fed on the 3,600 bottles of modified milk, not one died. It seems to me that Cambridge has again stepped to the fore in the fight against the high death rate among infants.

The babe, ushered into the world in a home where the bare necessities of life are a luxury, has, during the hot weather of July, August and September when the milk supply is unavoidably the poorest, small chance of surviving unless his resistance to disease is kept at least normal by clean, wholesome food. Modified milk is a means to that end, and I cannot urge too forcibly the continuation of this noble work, or state too strongly the appreciation of the mothers whose infants have been benefited by the appropriation which has been made so generously each year by the city government.

There are in Cambridge about 3,000 births annually. During the last season for the distribution of modified milk, only 150 infants took advantage of this opportunity.

ERNEST H. SPARROW, M.D.,

Inspector of Milk and Vinegar.

MODIFYING AND BOTTLING MILK

DIPHTHERIA HOSPITAL

January 1—December 31, 1910

January 1, 1910, there were remaining in the hospital from the preceding year 8 patients, 5 males and 3 females.

From January 1, 1910, to December 31, 1910, there were admitted to the hospital 123 cases, 62 males and 61 females.

Of the whole number of patients admitted, 116 has positive cultures and 7 had negative cultures (they were, however, clinically diphtheria), one of whom died. 8 patients were over 21 years old, with no deaths.

One patient developed scarlet fever and was transferred to the Homoeopathic Hospital in Brighton on account of lack of provision for isolation at this hospital. No other cases developed from this one.

There were 19 laryngeal cases, with 15 intubations and 4 deaths.

The total number of deaths was 12; mortality, 9.83 per cent.

The duration of the stay in the hospital of the fatal cases is as follows:

1½	hours	1	case
6	"	1	"
8	"	1	"
14	"	1	"
2	days	3	cases
4	"	2	"
5	"	1	case
7	"	1	"
11	"	1	"

In the above list 1 case was dying when admitted to the hospital, and 6 of the others were hopelessly sick.

The average time spent in the hospital for all cases was 18 days.

During the year just closed there were reported to the Board of Health 310 cases of diphtheria, of which 123 cases, or 39.67 per cent., were treated in the hospital. Since the hospital is maintained for the limitation of the infection, as well as the treatment of the sick, it would seem as though this percentage was too small, and that the public health would be better safeguarded if a larger number of cases could receive hospital treatment, thereby isolating a larger number of patients who cannot be effectively isolated at home.

GEORGE E. NORTON,

Physician.

TUBERCULOSIS HOSPITAL

I respectfully submit the report of the work done at the Cambridge Tuberculosis Hospital for the year 1910.

In the last report we noticed the gradual change of the institution from a Day Camp to a Hospital. This has been emphasized more during the present year. A glance at the tables will make this apparent. A comparison of the number of Day Patients, with the number of Permanent Patients, is given below. Very few new arrivals were suitable for Day Patients. The same difficulty in maintaining regular attendance of Day Patients has been met.

During the present year the majority of our new patients have come to us, unfortunately, late in their disease, and this fact naturally influenced the results obtained. Several were hopelessly sick, and many moribund on arrival. Our infirmary has been filled nearly all the time. The Hospital, although ill adapted for such a purpose, has become an institution for advanced cases. So much so that several promising cases were loath to remain in such an environment and sought treatment elsewhere.

The daily attendance this year has been considerably less than last year. Each month shows a smaller number than the corresponding month of last year. The opening of the three new State sanatoria has undoubtedly taken, many patients that would otherwise came to has undoubtedly taken many patients that would otherwise come to Board no case is admitted to the Hospital, unless it has established a residence in the city, or, in other words, Cambridge takes care of only Cambridge cases. Non-residents who happen to be temporarily living in the city at the time of the discovery of their disease, are referred to the city, town, or state, that is responsible for their care and treatment. Another cause has been the unfortunate publicity given to certain unfounded charges made against the hospital in the early summer. Every institution, at some time of other, has to suffer from the eagerness of irresponsible persons to invent, magnify and distort so as to destroy its good name. Such action cannot fail to do irreparable injury to an institution and to those who, stricken with disease, might be inclined to seek its assistance but for the fear they entertain that there may be some truth in these suspicions. It is a pity that malevolence should go unrebuked.

There are many persons, afflicted with tuberculosis, living in the city, who would be better off at the hospital and less of a menace to the community and their own families if they could be persuaded to come or to remain when they do come. Persuasion in many in-

stances will have to take the form of a charitable support of the members of the family dependent on the sick one for a livelihood. This requires a rare amount of tact and delicacy, sufficient to overcome personal pride, and a more thorough co-operation of the different charitable organizations that usually perform these functions.

A pleasing feature of this year's hospital work has been the universal good will existing between the patients and the officers of the hospital. We have been fortunate in having a kind, attentive, efficient nursing staff, and appreciative patients. The rules of the hospital have been cheerfully obeyed. What little infractions have occurred have been due to thoughtlessness rather than viciousness. The refusal of the Board to admit lawless characters and its willingness to uphold the physician in maintaining discipline, even in the face of unreasoning criticism, have done much toward preserving peace and harmony.

Frequent visits have been made to institutions like ours for the purpose of making comparisons. We are satisfied that the standard maintained at Cambridge is one of the highest. Particularly so is this true of our dietary. Patients coming from other institutions and visitors have frequently remarked this.

Last year we attempted to find some employment around the grounds for patients who were capable of doing light work. Little success attended our efforts. We planted a considerable area of land back of the hospital, but weeds grew in abundance for want of willing hands to remove them, and consequently our crop was very meagre. This year we did not attempt so much. A small plot of land was cultivated, and through the efforts of one or two dominating spirits among the patients our little farm was a model of neatness throughout the summer and supplied the table several times with fresh vegetables. Little by little more of the men began to assist, until quite a number of those that were able worked a few hours a day. Benefit rather than harm resulted from the plan.

The need of some light work under the eye of the physician has been felt in many sanitoria for some years past. Idleness continued for any length of time breeds a habit of inaction that is hard to overcome. At the same time it works more or less physical injury. Patients who are nearing discharge should be glad to break themselves in gradually, so to speak, so that when they return to home and work the change will not be too great.

In the fall the Board started a hen farm. We received 30 or 40 pullets, which we housed in a small shed with the front open,

except in stormy weather. There was a difference of opinion as to how the hens would stand the cold weather under these seemingly unprotected conditions, but the experiment has proved a success. We have received more eggs from our hens than any of the farmers in the neighborhood, whose hens are housed in heated and protected sheds. During the winter our hens laid from 5 to 6 dozens of eggs a week. These eggs, as far as they go, are given to the sickest of our patients. For the others we have had to buy from 60 to 90 dozens of eggs a week. We hope with the gradual development of our hennery to supply all the eggs needed in the institution. Comparatively no expense is attached to the hennery, as the hens are fed chiefly on the refuse from the kitchen.

STATISTICS

As each year passes the tabulating of cases becomes a difficult question. To do the work properly, one would have to give an almost complete case history of many individuals, which would necessarily make the report unwieldy and lacking in clearness. We have tried to follow up all our discharged cases, as much as possible, in order to make each record complete.

On January 1, 1910, we had 47 patients remaining in the hospital from the previous year. Four of these were patients who came in 1908, and the remaining 43 in 1909. Most of the data concerning them has been published in the last report.

Of the 4 patients of 1908, 3 died in 1910, one in the hospital, and two outside, after an absence of some months. One is still residing in the hospital.

Of the 43 patients of 1909, 17 have died in 1910, nine in the hospital, and 8 outside. Fourteen are still at the hospital, 10 as advanced ambulant cases, one as an arrested case, who will soon be discharged, and 3 as promising moderately advanced cases, who are improving slowly. Seven cases were discharged well and five cases discharged very much improved, and capable of doing light work. Three of the nine cases that died in the hospital had acute forms of the disease, two acute pulmonary tuberculosis, and one acute pneumonic phthisis, forms that are usually rapidly fatal. The first two were sick one month, and the other two months. The other 6 cases were advanced cases who had remained in hospital from one year to 1 year and eight months.

The percentage of this group of cases is:

.15 discharged well ..... .32 still resident
.10 " improved ..... .42 died
.10 incipient
.15 moderately advanced
.75 advanced

The length of stay in the hospital is tabulated below:

Months ...	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	23	24	26	27	29
Cases.....	2	1	1	4	0	3	4	2	3	2	2	5	1	0	3	2	0	4	1	2	1	1	1	1	1

During the year 1910 we admitted 112 cases. This number is much less than the two previous years. The apparent reasons are mentioned above. Below are given two tables, the first showing the admissions each year, and the second the admissions each month during 1910.

1908	122 cases	Jan.	11 cases	July	10 cases
1909	158 "	Feb.	7 "	Aug.	11 "
1910	112 "	Mar.	9 "	Sept.	4 "
		Apr.	19 "	Oct.	7 "
		May	9 "	Nov.	6 "
		June	14 "	Dec.	6 "

We readmitted 16 cases this year. Five were patients of 1908. They had been absent respectively 9 months, 14 months, 14 months, 17 months and 20 months. Two remained one month and recovered sufficiently to return to work. Three are in residence still as ambulant advanced cases. Habit, unsuitable employment, and lack of proper home conditions have caused their breakdown. 5 patients were patients of 1909. They were absent from 2 to 9 months. Most of them discharged themselves when they felt they were able to work, but found it necessary to return after a shorter or longer interval. Two remained 2 months, improved a great deal, and went back to work. Six patients were patients of 1910, who left for various reasons and were later readmitted.

NEW CASES

Stages: This year I shall follow the classification adopted by the National Association for the Study and Prevention of Tuberculosis. It recognizes three stages. In the last report we had four

stages, but our third and fourth stages can be very conveniently merged into one.

Incipient: Slight initial lesion in the form of infiltration limited to the apex of one or both lungs or a small part of one lobe. No tuberculous complication. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbance or rapid loss of weight). Slight or no elevation of temperance, or acceleration of pulse at any time during the twenty four hours, especially after rest. Expectoration usually small in amount or absent. Tubercle bacilli present or absent.

Moderately advanced: No marked impairment of function either local or constitutional. Localized consolidation moderate in extent, with little or no evidence of destruction of tissue; or disseminated fibriod deposits. No serious complications.

Far advanced: Marked impairment of function local and constitutional. Localized consolidation intense; or disseminated areas of softening; or serious complications.

	I	II	III	Total
1908	29	31	60	120
1809	39	51	63	153
1910	23	30	48	101

Above is a table showing the admissions in each stage during three years. This table seems to contradict the statement made earlier in the report that the hospital receives more and more advanced cases. It must be remembered that each year leaves a legacy of advanced cases to the succeeding year, and many of our readmissions are advanced cases. Besides, the 48 advanced cases received this year were in the majority of instances bed cases rather than ambulatory, so that it was apparent all the year that we were dealing with sicker patients than in former years.

The 11 cases not included in this table were as follows: Two were acute miliary tuberculosis. They were fatal in 4 weeks and 5 weeks. There were two cases of primary pleurisy, probably not tubercular, one of these was pleurisy with effusion filling almost one side of the chest. He was a small boy who had been sick some time before a physician saw him. Five pints of fluid were removed from

his chest and he was sent home in two months as well as ever. The other case was a chronic adhesive pleurisy. He improved very much, gained 17 pounds, and went back to work after 3 months, free from symptoms and with slight signs in his chest. There were 3 cases suspected to be tubercular, whose symptoms cleared up so rapidly that it left a suspicion of the diagnosis. Each improved very much and was discharged thoroughly well. There was one case of glandular and bone tuberculosis. She improved some, and left on her own accord. One case had tuberculosis of the eyes. He was completely cured in 5 months. One case had been treated elsewhere for two years as consumption. He had a frequently recurring bronchitis with asthma due to arterio-sclerosis. One case refused to give her history or be examined. She was discharged.

Sex: The proportion between the sexes remains about the same.

Number				Per Cent.		
Year	Male	Female	Total	Year	Male	Female
1908.....	70	52	122	1908.....	57	43
1909.....	90	68	158	1909.....	57	43
1910.....	65	47	112	1910.....	58	42

Age: As in former years, tuberculosis seems to be more prevalent between the ages of 20-30, between 30-40 next, and between 10-20 next. This is so in the reports of most hospitals.

	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	Total
1908	1	6	25	42	28	13	6	1	122
1909	0	7	35	50	37	21	7	1	158
1910	0	5	22	33	23	17	5	7	112

Nativity: Of the 112 patients 42 were born in foreign countries, 70 in the United States, 57 in Massachusetts, and 31 in Cambridge.

Nationality:

26 Irish American
23 American
14 Canadian
9 Irish
8 Negro
6 English-American
3 English
3 French Canadian
2 Canadian-American
2 Portuguese
2 Swedes
2 French-American
2 Scotch
2 Russian Jews
1 Pole
1 Italian
1 Italian-American
1 Portuguese-American
1 Swedish-American
1 Scotch-American
1 German-American
1 German

Occupation: These were varied. There is nothing to be learned from them except that the majority were indoor workers.

3 Bakers	1 Conductor	23 Housewives	17 Rubber W'k'rs
2 Barbers	2 Cooks	1 Laborer	1 Salesman
2 Boiler Makers	1 Cooper	1 Lab'r't'y Asst.	11 School Children
1 Bookkeeper	1 Divinity Stud't	1 Manufacturer	2 Shippers
2 Brick Burners	1 Decorator	1 Messenger	1 Shirt Maker
1 Brick Layer	3 Domestics	1 Motorman	1 Sign Painter
1 Butcher	1 Elevator Boy	1 Navy U. S.	1 Stenographer
1 Biscuit Maker	6 Factory Hands	1 Nurse, male	4 Teamsters
2 Carpenters	1 Gardener	1 Nickel Plater	2 Tinsmiths
1 Cattle Tender	1 Glass Handler	1 Net Maker	1 Upholsterer
1 Candy Maker	2 Grocery Clerks	1 Painter	1 Varnish Rubber
1 Clock Maker	2 Hack Drivers	1 Porter	1 Waiter
1 Compositor	1 Horse Shoer	1 Roofer	1 Waitress

Source: Tuberculosis was present in the ancestors in 19 cases, in the immediate family in 30 cases. In 63 cases there was no evidence of heredity or family contact.

Distribution of cases in the city wards: Wards III, IV and XI had the most cases in 1910. These are our most thickly settled wards. Ten cases came from out of town.

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Outside
1908 ..	13	5	16	17	4	12	10	4	9	4	6	22
1909 ..	18	7	20	13	6	6	16	8	3	5	9	38
1910 ..	8	5	19	16	2	12	9	8	8	1	14	10

Table showing the average, highest and lowest number of both day and permanent patients for each month:

1910	DAY			PERMANENT			ALL PATIENTS		
	Aver.	High	Low	Aver.	High	Low	High	Low	Total
January	6	11	1	41	45	38	54	38	1455
February	5	9	1	41	44	41	51	42	1303
March	4	7	1	37	41	32	46	35	1281
April	4	7	1	40	48	31	54	36	1328
May	2	4	1	43	46	32	48	42	1396
June	3	6	1	42	46	39	50	42	1377
July	2	4	1	44	47	37	51	40	1443
August	4	6	1	48	51	46	56	47	1623
September	3	5	1	42	48	35	53	37	1353
October	2	4	1	38	42	35	45	36	1269
November	1	2	1	37	42	24	43	24	1125
December	1	1	1	37	41	21	42	21	1166

CLINICAL FORMS.

Chronic Pulmonary Tuberculosis. The majority of the cases were chronic; 85.

Acute Pneumonic Phthisis. There were 7 cases of this form.

Six were fatal in from 4 weeks to 3 months. One improved a great deal.

Tubercular Pleurisy. There were six cases. All recovered as far as symptoms went, but in every case there remained diminished breathing, and a variable amount of dullness. The tubercle bacillus was demonstrated in each case.

Acute Miliary Tuberculosis. There was one case. The type was general, the lungs, intestines, and brain were involved. It proved fatal in 4 weeks.

Tubercular Bronchitis. There were three cases. Two improved some, one died suddenly of hemorrhage.

Laryngeal Tuberculosis. There was one case which seemed to be a primary tuberculosis of the larynx, the lungs were involved slightly a short time before death.

Starting Point of the Disease. The right apex was the starting point in 46 cases, 23 men and 23 women; the left apex in 32 cases, 9 men and 23 women; the right base in 7 cases, 4 men and 3 women; the left base in 10 cases, 8 men and 2 women. In 17 cases it was not possible to determine.

Results: 26 cases were discharged dead. 25 were advanced cases, one was an incipient case that died of hemorrhage. 20 cases were discharged unimproved. 8 of these died at home during the year. These 8 cases, with the 26 that died in the hospital, made a death rate of 30 per cent. among the 112 patients admitted during the year. It can be easily seen from the high mortality that the majority of our patients were very advanced.

There were treated in the hospital during the year 112 new patients, 16 re-admissions, and 47 that remained from the previous year, making a total of 175 patients. There were 36 deaths in the hospital among these patients, giving a mortality for the year of 20 per cent.

There were discharged improved 30 patients. Three of these were well enough to gain admittance to Rutland, having failed on a previous examination before coming to the hospital. One case was transferred to Reading, and one case of Mattapan. The amount of improvement varied from slight improvement in a few cases to marked improvement in many cases. As in previous years, several discharged themselves when they felt able to work.

Seventeen cases were discharged with the disease arrested. 13 were incipient, and 4 were moderately advanced.

Thirty seven cases remained in the hospital December 31, 1910.

Weight: 56 persons gained weight. The gain varied from 1 lb. to 41 lbs. 30 persons lost weight, some of them gained for a time, then lost. The rest were not weighed because confined to bed, or because they remained less than 1 week.

There is urgent need for an infirmary. The hospital, originally built as a day camp, does not supply this need. We have been obliged to use for a sick ward one of our dining rooms,which is only a makeshift, and offers none of the advantages of a hospital ward. It has been shamefully overcrowded during most of the year. In order to keep the sexes separate, as the number of sick men or women was in excess, we were compelled to move them from one room to another several times. It is unfortunate that we are obliged to offer the very sick such inadequate facilities as we now possess. We suggest that both the original dining rooms be changed into hospital wards suitably equipped, one for men, one for women, and a new dining room be built on the rear of the kitchen. With this added space we shall be able to care for the sick tuberculous for years to come and the expense incurred will not be very large.

FELIX McGIRR, M.D.,

Physician.

SCHOOL INSPECTION.

No change has been made in the method of school inspection the past year, or in the number of inspectors.

An appropriation was made by the City Government duing the year which allowed us to take on regularly the additional school nurse, who up to that time had been doing school work although provided for by private fund.

We are no better equipped for the work, therefore, than last year. Each school inspector still has about 3,000 pupils to watch, and our two school nurses still have to cover the entire city.

Boston has one school inspector to about 7,500 people, while we have one school inspector to about 9,100 people. In order to be on a par with Boston, Cambridge would have to have fourteen school inspectors.

Handicapped as we are for school physicians, we are much worse off as regards nurses. Many cases, particularly of skin diseases, return to school after exclusion, cured only to break out again simply because there is no one to see that other members of the family are cleaned up at the same time or give instruction to the parents as to how to keep the children clean once the offensive condition has been removed.

It is interesting to note that in two schools in the same section of the city both of about the same size, pupils of which come from the same neighborhood, one, rather closely surrounded, and not well ventilated, has had many cases of scarlet fever and diphtheria for several years, whereas the other school, older and in an open space, has had but two cases of diphtheria and one of scarlet fever in more than a year.

Following is the consolidated report of the school inspectors of the cases referred to them:

1. Specific Infectious Diseases:

Diphtheria	2
Scarlet fever	2
Measles	4
Mumps	6
Chicken pox	23
Tuberculosis (pulmonary)	3
Tuberculosis (other forms)	1
	41

II Oral and Respiratory Tract:

Stomatitis	2	
Alveolar abscess	1	
Dental caries	5	
Acute pharyngitis	17	
Adenoids	122	
Enlarged tonsils	56	
Enlarged tonsils and adenoids	86	
Acute tonsillitis	71	
Acute rhinitis	10	
Chronic rhinitis	1	
Ozaema	1	
Nasal obstruction	6	
Acute laryngitis	4	
Chronic laryngitis	1	
Acute bronchitis	5	
Chronic bronchitis	2	
Defective speech	3	
		393

III. Ear:

Otitis media	11	
Mastoiditis	1	
Imperfect hearing	6	
		18

IV. Eye:

Blepharitis	10	
Stye	1	
Obstruction lachrymal duct	1	
Conjunctivitis	79	
Ulcer or opacity cornea	4	
Keratitis	1	
Strabismus	15	
Congenital cataract	2	
Imperfect sight	27	
		140

V Skin:

Alopecia areata	2	
Dermatitis	8	
Eczema	35	
Erythema simplex	3	
Furuncle	8	
Herpes simplex	55	
Impetigo Contagiosa	39	
Pediculosis	299	
Psoriasis	2	
Scabies	24	
Seborrhea	3	
Tinea circinata (ringworm)	33	
Tinea favosa	1	
Verucca	1	
Icthyosis	1	
		514

VI. Miscellaneous Diseases:

Anemia	16
Debility and malnutrition	22
Headache	8
Cervical adenitis	27
Chorea	11
Ulcer	4
Deformities spinal	6
Sprains	1
Wounds and contusions	39
Abscess and sepsis	10
Neuralgia	1
Epilepsy	1
Rheumatism	2
Cardias diseases	1
Gastric diseases	2
Intestinal diseases	1
Urinary diseases	7
Vaccinations examined	26
Burns and scalds	1
No trouble, negative	432
Doubtful	43
Dirty	11
Malingering	11
Feeble-minded	3
Paralysis	2
Defective attitude	1
Inspections	29
Unclassified	46
	764
	1,870

BRADFORD H. PEIRCE, M.D.,

Medical Inspector.

REPORT OF THE SCHOOL NURSE

January 1—December 31, 1910

The School Nurse respectfully submits her report for the year.

Said nurse worked, as in previous years, directly under the Board of Health, in conjunction with the School Inspectors and in co-operation with the principals and teachers.

Through the kindness of the Cambridge Visiting Nursing Association, Miss Woodworth was again loaned to the Board of Health to work under supervision in the schools, where her efficiency has proven her services to be invaluable.

During the year routine inspection was made in every public school in the city. All cases, save those of defective vision, were held for examination by the respective school inspectors. Suspicious cases, and children suffering from contagious parasitic and skin diseases, were excluded, to be followed later to the homes by the nurse.

Children whose parents or guardians for some good reason were unable to attend to examinations or treatments, were taken by the nurses to private physicians or clinics and their after-treatments supervised; six hundred and twenty-three such children received attention.

The work of the school nurses has been preventive rather than curative, and every means to further this end has been employed. Realizing the importance of the work from the educational standpoint, more time than in previous years has been devoted to classroom instruction, and the individual teaching of elementary hygiene, while "health talks" were given, on request, to various mothers' clubs connected with the kindergartens.

It is gratifying to be able to note the increased interest on the part of parents, and their willingness to co-operate for the good of their children.

Attention is drawn to the fact that in the adjoining table there are fewer recorded, and more unrecorded calls than in 1909. Again, the notes are larger in number, with the resulting increase in treatments which represent a large expenditure of time and thought.

With only two nurses it has been impossible to cover, in a wholly satisfactory manner, the six school districts, for, although much has been done, there remains more that is undone, and it is earnestly hoped that in the near future there may be an increase in the nursing staff.

It is with a deep sense of gratitude that acknowledgment is made

to the Cambridge Visiting Nursing Association of the nurse loaned; to the Associated Charities of material aid furnished to special cases; and to the Cambridge Hospital of the many courtesies extended and privileges granted to the school children of Cambridge.

Thanks are tendered the School Inspectors, the members of the School Department, principals and teachers, and to all who have aided the work of the school nurses.

HOME CALLS.

Adenoids and tonsils	366	Anaemia	33
Adenoid deafness	20	Gastritis	1
Nasal obstruction	13	Rheumatic fever	1
Nasal catarrh	17	Rachitis	4
Rhinitis	1	Appendicitis	1
Defective hearing	25	Eneuresis	39
Otitis media	69	Masturbation	9
Laryngitis	14	Flesh wound	2
Tonsilitis	13	Burns of foot	1
Bronchitis	2	Impetigo	23
Tuberculosis	4	Eczema	6
Tubercular suspects	63	Scabies	30
" glands	18	Ringworm	28
" joints	14	Pediculosis	112
" foot	8	Favus	3
Pott's Disease	5	Unkempt condition	4
Spinal curvature	41	Hernia	1
Orthopedic	11	Paralysis	4
Meningocele	4	Convulsions	2
Neurasthenia	3	Asthma	2
Chorea	15	Cleft palate	1
Epilepsy	19	Retardation	4
Malnutrition	24	Quarantine cases	2
Defective teeth	8	Conjunctivitis	42
" vision	194	Strabismus	95
Ulcers of cornea	21	Lachrymal obstruction	14
Cataract	2	Granular lids	17
Questionable diagnosis	40		
Total	1,523		

TOTALS.

Number of cases held for inspection	538
" " " taken for treatment (nurses)	623
" " Home Calls—recorded	1,523
" " " " —unrecorded	186
" " notes sent	174
" " free glasses provided	14 prs.

J. M. C. HUME,

School Nurse.

REPORT OF INSPECTOR OF PROVISIONS

The undersigned respectfully submits his report as Inspector of Provisions for the year ending December 31, 1910.

The general conditions attending the preparation and sale of food stuffs in this city have been satisfactory.

Certain minor details can be improved, but in most respects the conditions in Cambridge are as good, if not better, than in other communities, and the public has little cause for complaint.

The wholesale and retail dealers have shown a commendable willingness to conform to sanitary requirements.

The making of confectionery is rapidly increasing in our city. Already many large manufactories are in constant use, and more are being erected.

The large confectionery establishments have been inspected carefully during the year. Changes have been suggested in the manner of utilizing and handling the materials before manufacturing, as well as in the product while it is being made ready for packing.

Improvement can be made in most of the factories in the use of utensils and machinery. Most of the firms engaged in this business have complied with many of the suggestions of the Inspector, but none have yet reached the standard that in my opinion should be the rule, although on the whole a reasonably good standard has been attained.

It has been a common practice for confectionery makers to unload the refuse material in the public dumps, and this practice has been a source of temptation to children, who pick out this refuse candy. I would recommend that a regulation be adopted compelling all manufacturers to cause all refuse material to be carried to the public incinerator for burning. The Superintendent of Streets has expressed his readiness to co-operate by allowing the use of the incinerator for this purpose.

The markets and retail stores are in excellent condition. Frequent visits were deemed advisable in order to enforce some of the regulations of the Board, and on Saturday special calls have been made particularly during the evening in the rush of business.

In several cases, report of which has been made heretofore to the Board, improper sewer connections were taken up with the Inspector of Plumbing, and the defects were immediately remedied.

The regulations as to the offering for sale of food-stuffs in open receptacles have been enforced strictly and there has been a general compliance with the orders of the Board in this respect.

In all cases where the use of newspapers as wrappers for food was discovered, complaint was made in court, convictions have been secured and the practice has been discontinued.

I keep in close touch with the large makers of ice cream, especially during the summer season, and I feel justified in reporting their excellent conditions as to sanitation and handling of material, which, I am confident, will compare favorably with those of any locality.

There are some small manufactories where methods must be improved, and I would recommend that licenses be granted by the Board of Aldermen only when such sale may have the approval of the Board of Health.

I am pleased to report most favorably in relation to meat slaughtering establishments.

The regulations recently adopted by the Board have been enforced thoroughly, and they have been of much assistance in enabling the Inspector to remedy many of the injurious practices.

So far as concerns the conditions attendant upon the slaughtering of poultry, a stricter inspection than has been possible would undoubtedly result in much improvement. In one case particularly complaint has been made in court twice, but as yet no conviction has been secured.

The condition of lunch carts is satisfactory, but some regulation is needful for the proper inspection of restaurants with reference to sanitation of the buildings used, as well as the handling and storage of supplies. I am preparing regulations to overcome the objectionable features for the consideration of the Board.

The following statistics are submitted:

SLAUGHTER HOUSE INSPECTION.

Veal	slaughtered	14,207
Sheep	"	197
Pigs	"	94
Poultry	condemned	227
Veal	"	727
Sheep	"	5
Pigs	"	1

Two sheep for emaciation and three for septicaemia; one pig for tuberculosis; the veal, either because of death on arrival or for weakness or immaturity. The fowl were unfit for food because of canker and emaciation.

MARKET PRODUCTS CONDEMNED.

Beef	1,427	lbs.
Lamb	276	"
Pork	197	"
Poultry	757	"
Cod, halibut and eels	1,751	"
Lobsters	271	"
Oysters	2	gallons
Clams	1½	"

FRUIT CONDEMNED.

Grapes	20	baskets
Melons	6	crates
Pears	2	bushels
Peaches	21	baskets
Lemons	2	bushels
Strawberries	121	quarts
Pineapples	5	crates
Oranges	1½	"
Cranberries	1	bushel
Blackberries	2½	crates

VEGETABLES CONDEMNED.

Potatoes	27	bushels
Celery	2	boxes
Squash	½	barrel
Sweet potatoes	½	"
Spinach	5	bushels
Onions	1½	barrels
Radishes	2	bushels

There were also condemned five bags of flour.

JOSEPH L. JOHNSON,
Inspector of Provisions.

NUISANCES ABATED

Offensive and defective water-closets	98
No traps to sinks	8
Leaky and defective traps	39
Defective drainage, open and defective drains	12
Plumbing tests made	19
Filthy yards	1,313
Filthy stables	26
Manure in yards and lots	28
Wet and damp cellars	5
Stagnant water on premises	2
Dead animals on premises	1
Dead hens on premises	2
Filthy buildings	5
Filthy cellars	94
New water-closets put in	11
Dirty hen-coops	40
Offal receptacles cleaned and new ones provided	115
Vacant lots cleaned	10
Barber shop supplied with hot water	1
Cellar from which fowl were removed	1
Bakeries whitened	3
	1,833
Number of inspections	24,170
Number of subsequent inspections	2,003
	26,173
Number of notices served	107
Number of houses placarded	393
Premises disinfected	917
Public sanitaries inspected and cleaned	1,030
Public sanitaries repaired	13

PATIENTS REMOVED TO HOSPITALS.

Diphtheria Hospital	99
West Dept. Mass. Homœopathic Hospital, Brighton	74
Tuberculosis Hospital, Concord avenue	24
Cambridge Hospital	16
Holy Ghost Hospital	1
State Infirmary, Tewksbury	2
Stillman Infirmary	1
Boston City Hospital	2
Channing Home	2
St. Monica's Home	1
	222

JAMES B. SOPER,

Clerk.

REPORT ON STREET IMPROVEMENT, ETC.

June 26, 1911.

To the Honorable, the Mayor and the City Council, Cambridge, Mass.

GENTLEMEN:—Under authority of the Order passed by the City Council April 20th, 1910, and approved April 22nd, 1910, we present our Report upon

A COMPREHENSIVE PLAN FOR THE DEVELOPMENT AND IMPROVEMENT OF THE STREETS AND THE DISPOSAL OF REFUSE OF THE CITY OF CAMBRIDGE.

Respectfully,

GEO. M. CLUKAS,
EDWARD W. QUINN,
LEWIS M. HASTINGS,
HARRISON P. EDDY,
Commissioners.

THE REPORT.

The Order, authorizing this investigation, appears in full as Appendix I. It was so broad in scope that almost any subject pertaining to the streets of Cambridge might be included. The Commission has, however, confined its studies to preparing a comprehensive plan for the paving of certain existing streets and the disposal of the refuse collected by the street department.

The Order authorizing the appointment of the Commission, stipulated that the City Engineer and the Superintendent of Streets should be members, and accordingly Messrs. Lewis M. Hastings and Edward W. Quinn, the present incumbents of these offices respectively, were appointed and have served. It also authorized the Mayor to appoint a third person, and such expert engineers as the Cambridge Taxpayers Association might suggest. Pursuant to this authority, the Mayor appointed Mr. George M. Clukas, as the third member of the Commission, and at the suggestion of the Cambridge Taypayers Association, appointed Mr. Harrison P. Eddy, as the fourth member.

The first meeting of the Commission was held at the City Hall in Cambridge, May 5, 1910. At this meeting, Mr. George M. Clukas was elected Chairman and Mr. Harrison P. Eddy, Secretary.

In view of the fact that the season was at this time well advanced and the City Council ought soon to know what recommendations the Commission might make for the work of the current year, the most obvious improvements requiring early attention were considered forthwith, and a Report dated May 21, 1910, was made to the City Council, embodying certain recommendations. This report appears in full as Appendix No. 2.

PART I. PAVEMENTS.

General.

The first substantial pavements were laid for military purposes. With the gradual disappearance of wars, there was an increase in the number of industries, and as a result improved streets were required for the drawing of heavy loads. This change required the laying of more pavements. Following the period which might be called the "Age of Industry," we find the age,—shall we call it the "Age of Luxury?"—in which many roads must be built, not for our armies, not wholly for our industries, but largely for, and as a result of our automobiles. Since the advent of the bicycle and the automobile, the

movement toward improved roads, perhaps more particularly country roads, has been very rapid and important.

The value of good roads has been realized for many years, and perhaps cannot be better expressed than in this quotation from Lord Bacon,—"There are three things which make a country great and prosperous,—a fertile soil, busy workshops and easy conveyances for men and things from one place to another."

Another pertinent quotation may be made from an article by Ernest Flagg, Century Magazine, 1910, as follows: "Of all inventions, the alphabet and printing press alone excepted, those which have abridged distance have done most for civilization."

While the value of good roads as a business project has been realized, as already indicated, it should also be realized that there have been other causes of the demand for improved streets. With an increased degree of culture, our citizens have demanded that clean roads free from mud and dirt be provided in our cities; that the personal discomfort and damage to property resulting from dust, be abated as far as possible and even that noise caused by the rattle of vehicles over rough and uneven pavements be reduced to a minimum. Efforts toward the preservation and improvement of the public health have also been instrumental in securing cleaner sidewalks and streets.

Cambridge is a residential and educational centre as well as the seat of varied industries. She is known throughout the world as the seat of the greatest American University and is annually visited by thousands of travellers from this country and abroad, and should, therefore, take pride in her general appearance, as well as in the utility of her public works.

Situated on the left bank of the Charles River,—now the Charles River Basin, a great water park, she lies between Boston and several towns and cities, the residents of which pass through her streets on their way to and from Boston. Some of these neighboring cities and towns are Boston, Somerville, Medford. Arlington, Lexington, Belmont, Waltham, Watertown, Newton and Brookline. To and from all of these towns vehicles laden with passengers and merchandise pass through the City of Cambridge, using the streets and profiting by many privileges which in most cities are enjoyed by few others than the citizens who provide them.

The Charles River has furnished a natural boundary between Boston and Cambridge, so that it has not been practicable to extend many of the streets of Boston into Cambridge. The travel has, there-

fore, been restricted to a few streets leading to bridges which span the river. These bridges constitute foci of travel, which converges from various parts of Boston to the bridges and from the bridges diverges through certain main thoroughfares in Cambridge. There are seven of these river crossings, from each of which an important thoroughfare leads to the heart of Cambridge, whence they, or other thoroughfares, extend to the surrounding towns.

AREA AND POPULATION OF CAMBRIDGE.

The area of the City is approximately 4,185 acres, or 6 1-2 square miles. In 1910 the Census indicated a population of 104,938. The average density of the population is, therefore, 25.1 persons per acre. There are comparatively few cities in the country where the average density of population is as great as that of Cambridge. Of the larger cities, Allegheny, Pa., is most densely populated, having 30 persons per acre, Jersey City, New York, and Baltimore each have a density of 28, Newark of 26, and Boston of 24 persons per acre.

The City is apparently approaching a size beyond which her growth must necessarily take place by an increase in density of population rather than by the development of now large unoccupied areas, leaving out of consideration increase in size due to possible annexation of new territory. A large portion of the streets which will be needed, are already provided and it is probable that in the future the mileage of new streets accepted from year to year will be comparatively small, as well as that of new private streets to be laid out through private property.

LENGTH AND AREA OF STREETS.

As bearing upon the relative length of accepted streets, it is interesting to compare the density of population and length of streets per unit of area in Cambridge, with those of the various districts of the City of Boston.

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION.

Table 1.—Density of Population and Length of Streets per Unit of Area of Cambridge and the Several Districts of Boston.

District	Population per acre.	Miles of Streets per square mile.	Feet of Streets per acre.
City Proper	78.2	27.2	224.5
Charlestown	46.6	17.9	147.8
East Boston	34.3	11.8	97.5
South Boston	49.5	21.0	173.4
Roxbury	44.8	21.8	180.0
West Roxbury	5.2	6.6	54.4
Dorchester	17.6	13.1	108.0
Brighton	8.5	10.0	82.6
Average	24.6	13.3	110.0
Cambridge	25.1	15.65	129.2

From this tabulation, it appears that Cambridge has a greater length of streets per unit of area than Boston taken as a whole, and is exceeded in this respect only by four districts,—the City proper, Charlestown, South Boston and Roxbury, in all of which the density of population is far in excess of that of Cambridge.

The slow rate of increase in the length of accepted streets in Cambridge is also shown by the data contained in Table 2, from which it appears that the average increase during the last decade, has been slightly less than one mile per year. From these facts, it seems evident that the burden of expense of building new streets during the next ten years will not be serious.

The increase in the area of street pavements during the last ten years has greatly exceeded the increase in the area of street surface, especially during the more recent years, as shown by data in Table 2. The average increase in area of paved surfaces has been over 32,000 square yards per year, whereas that of travelled ways has been but about two-thirds as great, or 22,000 square yards. This is the result of continued efforts to increase the proportion of durable pavements. The project herein recommended requires the paving with durable pavement of 33,770 square yards of street surface annually, during the next ten years.

The term "Durable Pavement," as used in this report, means any pavement which, in the opinion of the Commission, will have an economic life of at least 10 years upon a street subject to a moderate volume of light traffic as, for example, upon Magazine Street. Granite block, brick, wood block, and bitulithic pavements, are classed as "durable pavements," but macadam, tar macadam and gravel roads are not included in this classification.

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION.

Table 2.—Data Relating to Street Construction 1900 to 1909.

CAMBRIDGE, MASS.

Year	LENGTH AND AREA OF STREETS					DURABLE PAVEMENTS	
	Total length of ways open for travel. Miles.	Total Length of accepted streets. Miles.	Total length of paved street Miles.	Area of traveled portion of streets accepted, during year. sq. yds.	Total area of traveled portion of accepted streets. sq. yds.	Area paved during the year. sq. yds.	Total area paved to date. sq. yds.
1900	.....	92.845	7.780	36.423	1,677.709	19,218	166,201
1901	.....	93.848	8.566	18.124	1,695.833	26,974	193,175
1902	.....	95.399	9.347	38.027	1,723.860	15,077	208,052
1903	.....	96.808	9.544	25.460	1,749.320	4,048	212,300
1904	.....	99.286	10.658	44.778	1,794.098	29,103	241,403
1905	122.336	99.542	12.592	4.626	1,798.724	66,011	307,414
1906	.....	100.733	14.101	21.521	1,820.245	33,524	340,938
1907	....	101.237	16.307	9.469	1,829.714	56,693	397,631
1908	....	101.821	17.389	10.191	1,839.905	28,928	426,559
1909	122.570	102.425	18.991	10.915	1,850.820	44,198	470,757

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION.

Table 3.—Comparative Statistics of the Larger Massachusetts Cities—Excluding Boston.

	Worcester	Fall River	Lowell	Cambridge	New Bedford	Lynn	Springfield	Lawrence	Somerville
Population 1910	145,986	119,295	106,294	104,839	96,652	89,336	88,926	85,892	77,236
Total area square miles	38.41	41.00	14.00	6.54	19.33	11.33	38.5	7.15	4.22
Total Valuation	$141,212.600	$88,595,588	$79,844,448	$106,958,136	$76,280,225	$70,076,492	$119,081,778	$65,446,007	$66,375,738
Per capita valuation	$969	744	752	1,018	790	785	1,328	762	859
Public Streets, Miles	216.00	143.88	135.44	102.42	156.52	120.00	157.47	64.00	74.74
Paved Streets, Miles	18.47	16.17	21.98	18.99	22.75	17.10	10.89	9.00	8.33
Miles of Public Streets per sq. mile of area	5.62	3.50	9.70	15.66	8.09	10.59	4.09	8.95	17.71
Valuation per Mile of Public Street	$654,000	$615,000	$590,000	$1,044,000	$487,300	$583,970	$756,100	$1,022,600	$888,000
Valuation per Mile of Paved Street	$7,630,000	$5,480,000	$3,630,000	$5,630,000	$3,353,000	$4,098,000	$10,933,000	$7,271,000	$7,968,200

In Table 4 are compiled the annual expenditures of Cambridge for paving and cleaning streets, and the payments made to the city by the Boston Elevated Railway Company, under the excise tax law. Chapter 14, Sec. 47 of the Revised Statutes provides that

"All taxes which are collected from street railway companies and paid to cities . . . shall be applied toward the construction, repair and maintenance of the public ways and removal of snow therefrom, within such cities and towns"

While Cambridge has provided for those purposes more than the equivalent of this tax, the payments made by the Railway Company are not turned over directly to the Street Department. We believe that these funds should be placed directly at the disposal of the Department, so that the officials in charge can know definitely that this money will be available each year and can plan their work accordingly.

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION.

Table 4.—Payments for Paving and Cleaning Streets and Amount Received from Boston Elevated Railway Company.

Year	Payments for		Payments made to City by Boston Elevated Ry. Co.
	° Paving	Cleaning Streets	
1900	$75,903.42	$34,499.79	$106,515.94
1901	95,366.85	29,999.64	83,997.99
1902	73,750.99	30,033.25	69,747.61
1903	18,950.11	34,995.63	73,480.56
1904	103,212.21	30,999.43	68,914.72
1905	110,073.61	30,997.92	78,117.30
1906	146,517.25	33,961.86	64,957.69
1907	157,448.21	36,984.62	77,445.10
1908	62,700.00	41,999.00*	63,589.00
1909	88,500.00	44,499.63*	69,188.09

*Includes snow removal.

°Amount paid for paving streets including payments from loans for macadam construction.

VALUATION FOR TAXATION.

The total valuation of Cambridge in round numbers is $107,000,000, it being the third of the cities included in Table, while in per capita valuation it is second only to Springfield, the valuation being $1,018 and $1,328 per capita, respectively.

The City of Worcester has the largest mileage of public streets, 216 miles, whereas Cambridge has but 102 miles. On the other hand, Cambridge has 18.99 miles of paved streets as against 18.47 in Wor-

cester. The number of miles of paved streets per square mile of area in Cambridge in 15.66, which is much larger than that of any other city, except Somerville. The valuation of Cambridge per mile of public street, $1,044,000 is higher than that of any of the other cities.

Taking into consideration the valuation of the city and the number of miles of streets to be maintained, it would appear that Cambridge should be able to devote the largest amount of money per mile to the maintenance and improvement of streets of any of the cities included in this comparison, and it would, therefore, be natural to expect that she would have the best streets.

STREET CONSTRUCTION LOANS.

The amounts and dates of maturity of bonds issued for street construction purposes are given in Table 5. The total amount of bonds which will mature and be retired in the next ten years is $414,000 or an average of $41,400 per year. During the ten years from 1921 to 1930 both inclusive, the total amount retired will be $590,500, an average of $59,050 per year. The total amount of bonds to be retired in the next 20 years is $1,004,500, or an amount practically equivalent to the sum of the expenditure recommended herein for new durable pavements. If this work is financed by the issue of bonds running for a term of 10 years in each case, they will mature within 20 years and will be off-set in a way by the bonds now outstanding, which will be retired.

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TABLE 5. AMOUNT AND DATE OF MATURITY OF STREET CONSTRUCTION BONDS NOW OUTSTANDING.

Mature	Amount	
1911	.....	
1912	$24,000	
1913	.....	
1914	30,000	
1915	60,000	
1916	137,000	
1917	.....	
1918	62,000	
1919	5,000	
1920	96,000	
		$414,000

1921	54,000	
1922	44,000	
1923	16,000	
1924	65,500	
1925	85,500	
1926	122,000	
1927	94,000	
1928	76,000	
1929	20,000	
1930	13,500	
		590,000
		$1,004,500

BORROWING MONEY FOR PAVEMENTS.

In 1910 the legislature passed an Act, Chapter 482, in which it provided that the City of Cambridge shall issue no bonds for the construction of macadamized streets, or streets of less permanent construction. This Act, which is quoted in full as Appendix III, further stipulates that the City may issue bonds, payable in ten years, for such pavements and construction as the City Engineer may certify to be of a permanent character, except that payment for a pavement consisting of granite blocks or cobblestones, the City may issue bonds payable in twenty years.

The evident purpose of this act was to require that bonds issued to pay for pavements should not run for a term of years exceeding the life of such pavements. This is a sound financial policy which was not always followed prior to the passage of this act.

It must be obvious to the most casual observer that the City should not issue bonds for a period of twenty years to pay for a pavement which cannot possibly have a life exceeding ten or fifteen years, and we believe that it would be wise for the city to make an effort to pay for most of the street construction from current tax levies and moneys received from the Boston Elevated Railway Company. We realize that it will be impossible at times to accomplish this result, and we do not consider that it is within the scope of our investigation to make such a study of the subject as would enable us to point out a method by which cash payments may be made for paving.

PRESENT CONDITION OF STREETS AND CAUSES OF DISSATISFACTION.

Complaints are often heard of the unsatisfactory condition of the streets of Cambridge. These complaints are due to several causes, such as dust rising from the streets, dirt and mud found upon them, noise, and the roughness and unevenness of their surfaces.

The relation of street dust to the public health, is of great importance. Upon a moment's reflection, it will be evident that our streets are receptacles for vast numbers of organisms of various kinds. Under proper conditions, many of these may cause disease. The tubercle bacillus contained in the sputum of persons suffering from tuberculosis, frequently reaches the streets and is undoubtedly present in much of the accumulation of street filth. While there is little, if any, direct evidence that specific cases of diseases have been caused by street dust, it is quite generally recognized that throat and other troubles follow periods during which dust is prevalent. Dr. E. W. Hope* has compiled statistics with a view to presenting circumstantial evidence that street dust has caused infantile diarrhoea. He attempts to show a relation between rainfall and mortality from this disease. The statistics are given in the following tabulation:

Period	Average rainfall June to Sept. in inches	Conditions	Annual Avg. of deaths from diarrhoea during 3rd quarer of Year
6 years	13.8	Avg. wet summer	373
14 years	10.9	" dry "	573
EXTREME YEARS			
1891	16.	Wettest Summer	203
1895	7.7	Driest Summer	819

In Science[0], Dr. Sedgewick records that "10 litres of air taken 5 feet above the surface of a macadamized street in a dust storm, contains as many as 200,000 micro organisms." Such statistics and researches throw much light upon the possibility of a direct connection between dust and disease. It is not necessary in this report to go into great detail in this matter. It is, however, important in any report upon the improvement of city streets to point out the dangers of the dust nuisance. Much can be done to prevent dust by a proper and thorough cleaning of the streets. Another important method of

* Harrington's Practical Hygiene

[0] January 6, 1911.

dust prevention is the application of oil to the street surfaces. This is a recent practice, but it has already demonstrated its value. Every effort should be made to reduce the danger from street dust to a minimum, both by so constructing streets that the least amount of dust will arise from them, and by adopting the most approved methods of street cleaning and dust laying.

Smooth, durable pavements are less rapidly disintegrated and much more easily cleaned, and are, therefore, generally accompanied by less dust and dirt than the rough and friable road surfaces which now predominate.

It is now well recognized that the tendency to create noise is a real objection to a street pavement, and the demand of the present time is that decided preference shall be given to those pavements by which this tendency is reduced.

While there are many street noises which are not in any way due to pavements, such for example as that produced by a rapidly moving street car,—efforts are now being made to construct pavements which will reduce as much as possible the noises produced by the rattling of vehicles and the impact of horses' hoofs. This is particularly important in retail shopping and office building districts, in the neighborhood of schools and hospitals and in residential districts, although in the latter the volume of traffic is usually so small that noise caused by rough and resonant pavements is less important than where there is a greater volume of traffic.

The quality of noiselessness in a pavement has a real value. This is shown by the fact that there is a well defined tendency toward the selection of residence sites at a distance from noisy streets. It is frequently observed that streets which formerly proved very desirable for residences have, after the introduction of street car tracks, lost their desirability and depreciated in value and the residents upon them have retired to more quiet neighborhoods to escape the noise. Somewhat the same conditions result from noisy pavements.

The value of well paved streets from a commercial point of view has long been recognized. It is obvious that the power required to draw a given load upon a hard, smooth pavement, is much less than upon a rough and soft street surface and, conversely, a larger load can be drawn by the same power over a hard and smooth pavement than over a rough and soft street surface.

This fact is thoroughly appreciated by business houses which use the streets for transporting merchandise. The motor truck is com-

ing into use and the advantages of smooth pavements will be more and more apparent as its use becomes more general. Good pavements also prove of great advantage in the case of horse-drawn vehicles although probably the advantage is somewhat less than in the case of motor trucks. Streets subjected to a voluminous horse-drawn traffic, especially of a heavy character, should be so paved as to furnish as good a footing as possible for the horses, due consideration being given also to the other elements which enter into the problem of the selection of pavements.

With respect to the rough condition of the street surfaces, it may be said that on the whole the streets of Cambridge are probably in as good condition as those in most other cities of similar size in this vicinity. There is a tendency for citizens who visit other cities and see a few of the better streets, to return and compare the streets thus observed with many of the streets in their home cities. This is usually unfair because judgment should be based upon a comparison of all the streets of one city with all of those of another, or at least of streets of similar importance and subject to similar traffic conditions in both cities. Cambridge, as pointed out elsewhere, in this report, has provided a greater proportion of durable pavements than the other cities of comparable size in Massachusetts. Whatever explanations may be made, however, it is a fact that many of the street surfaces are decidedly rough and unsatisfactory, and it has been the aim of this Commission to study into the causes of this condition, and to suggest a plan which, if carried out, will provide the city with a larger number of satisfactory streets.

One of the causes of rough and unsatisfactory streets is the fact that they have been in many cases built of macadam, or gravel, without proper regard to the character of traffic to which they were to be subjected. Gravel and macadam roads were satisfactory when the traffic was small in volume and comparatively light. With the increase in travel and particularly with the advent of the high speed motor car, the wear upon many such street surfaces has become so great that they rapidly disintegrate and many depressions develop in their surfaces, so that it is impossible to maintain such streets in good condition at reasonable cost.

Another cause of unsatisfactory streets which may even exist with durable pavements as well as with macadam streets, is the lack of proper repairs at the opportune time. The saving caused by a "stitch in time" applies with much force to repairs of street surfaces

at the time when the imperfections first develop. It is easy and inexpensive to make suitable repairs of a small depression in a street surface. If, however, this small depression is allowed to remain unrepaired, it grows with great rapidity until often within an extremely short period it becomes a large and deep hole. Vehicles drop into a depression, rebound and strike the pavement beyond with an impact of sufficient force to cause a second depression a short distance from the first. In this way a single defect may cause a series of others and eventually cause the destruction of a large area of the street pavement.

Many of the streets in Cambridge have been macadamized where the conditions were too severe for such construction. The result has been the expenditure of large sums of money for the maintenance and rebuilding of these streets. A portion of these expenditures might better have been applied to the construction of more durable pavements.

The extensive use of the automobile has increased the rate of deterioration of the street surfaces, and caused much of the complaint about the conditions of streets as well. The motor car is propelled by the rear wheels, which react against the surface of the street and in this way the power is transmitted to the road-bed. Unless the road-bed is capable of resisting this action it is disintegrated by it. Streets which formerly, though somewhat rough and uneven, caused comparatively little discomfort to persons riding in slowly drawn vehicles, now prove very unsatisfactory to the occupants of vehicles driven at high speed, such as the bicycle and motor car. It thus appears that not only are the streets subject to much more severe destructive agencies than formerly, but that the demand for smooth streets is also much more exacting.

REMEDY FOR PRESENT UNSATISFACTORY CONDITIONS

The present unsatisfactory conditions may be greatly improved if the following suggestions are carried into effect.

The selection for each street of a type of pavement best adapted to the requirements with reference to the traffic and other conditions.

The construction in the near future of a much larger proportion of durable pavements than previously provided, and the provision of several well-paved parallel thoroughfares.

The prompt and thorough repair of defects in the street surfaces, due to wear and other causes.

The strict supervision of the excavation and refilling of trenches and the reconstruction of the street surfaces over such fills, to accomplish which a competent inspector should be delegated to enforce the requirements upon this class of work.

The systematic, frequent and thorough cleaning of the streets.

The adoption and efficient execution of scientific methods of dust laying, or surface treatment of gravel, and macadam streets, due consideration being given to traffic and other conditions in each case.

All streets subject to heavy traffic, or a large volume of light traffic, should be provided with durable pavements although it is not necessary to provide them for streets which are short and subject to purely local traffic, such as that serving only the residents of the immediate neighborhood.

The character of the pavement to be provided should be selected with due regard to traffic conditions, the width of roadway and the nature of the locality in which it is to be laid. A certain kind of pavement may have a life of fifteen years in the case of a street subjected to voluminous but light traffic, whereas if laid upon a street subject to very heavy traffic, this life might be reduced to five years or even a shorter period. It is, therefore, of great importance to select the pavement best adapted to the existing conditions.

Where there is only a single thoroughfare provided with a satisfactory pavement, it draws travel from a considerable distance on either side of it. It thus serves a much heavier and more voluminous traffic than normally belongs to it, or than it would serve if the several adjacent and parallel thoroughfares were provided with durable pavements. For that reason, an effort should be made to pave several optional routes, that the traffic may be distributed over a number of streets and not concentrated upon a single pavement.

Too much emphasis cannot be placed upon the importance of making repairs when their need is first apparent. The best pavements are rapidly destroyed by the failure to make slight and comparatively inexpensive repairs.

The streets should be kept scrupulously clean that there may not be unnecessary quantity of filth to be blown about in the form of dust as tracked about, and even into the houses in form of mud. Accumulations of dirt upon gravel and macadam streets, and upon bituminous pavements, are a fruitful cause of disintegration.

In spite of most careful and thorough cleaning, it is necessary to provide for dust laying by watering, oiling, application of chemicals, or by surface coats of bituminous substances such as coal tar and asphalt. Oiling has proved advantageous in many cases. It effectually lays the dust and is less expensive than watering. By avoiding the application of large quantities of water for dust laying, and by causing the streets to quickly shed the water in time of rain, much

is accomplished in preserving the life of the streets, as water is conceded to be one of the worst causes of rapid disintegration. Heavy oils and tars are now being used for coating street surfaces. This treatment greatly reduces the dust nuisance and at the same time affords a binder which holds the surface particles together, and thus tends to preserve and prolong the life of the streets.

HEARING UPON PROBLEM OF PAVING MASSACHUSETTS AVENUE BETWEEN LAFAYETTE AND CENTRAL SQUARES

On October 6, 1910, a hearing before the Commission was held at City Hall, to give interested citizens an opportunity to express their views upon what kind of durable pavement should be laid upon that portion of Massachusetts Avenue lying between Lafayette and Central Squares. The hearing was well attended and fourteen citizens discussed the subject. It appeared that the retail merchants on Massachusetts Avenue for the most part were in favor of a smooth high grade pavement, although there was some difference in opinion as to what this pavement should be.

Some expressed the opinion that the pavement should be as nearly noiseless as possible, while others who occupy stores on this street, which has been paved for many years with granite blocks, stated that they had experienced no trouble on account of noise. Several citizens, including some retail merchants, opposed the laying of a smooth pavement and especially wood block pavement. Their objections were based upon the slipperiness of the pavement which they contended would cause inconvenience to teamsters, and discomfort and danger to horses. They also expressed the view, based in part upon experience with wood block pavement on Harvard Bridge, that such pavement would not prove durable and would therefore be unsatisfactory if laid upon Massachusetts Avenue between Central and Lafayette Squares.

The Commission has given careful consideration to the views expressed at this hearing. It has also investigated the advantages and disadvantages suggested at that time, by a personal examination of the pavements in several cities, notably,—Boston, New York and Philadelphia,—and the conclusions reached will be found later in this report.

CONSIDERATIONS AFFECTING THE SELECTION OF TYPE OF PAVEMENTS BEST ADAPTED FOR USE UPON A GIVEN STREET

There are two classes of factors which should be considered when selecting the character of pavement to be placed upon any street. The first class relates to the conditions to which the pavement will be subjected. Among these are the quantity and nature of traffic, the slope or grade of the street, the character of the district through which the street runs, and the presence of car tracks. The second class relates to the qualities of the pavement, among which are its durability, smoothness, noiselessness, slipperiness, sanitary qualities, and its cost.

As shown by table 6 the annual cost of the modern granite block pavement is estimated to be considerably less than any of the others and when built of materials best suited to the purpose and in the most approved manner it is far different in character from that with which the citizens of Cambridge have been familiar for many years. This modern type may be fairly classed as a semi-smooth pavement.

Where a street is subjected to very heavy traffic, where the volume of moderately heavy traffic is large or where a moderate amount of traffic is confined to a very narrow roadway, as between car tracks and the curb in the narrower streets, the granite block pavement is undoubtedly the most economical and satisfactory. Its wearing qualities are very much greater than those of any of the other pavements.

Where traffic is light and moderate in amount, and particularly in residential sections and retail shopping and office districts, it may be advisable even at an increased annual cost to adopt one of the other pavements, in order to avoid the noise due to the rattling of vehicles upon the granite blocks. In such cases asphalt, wood block, or bitulithic pavements may be adopted. These pavements are more slippery than either the granite block or the brick, but they are also less noisy.

The brick pavement may be less noisy than the granite block pavement, although the difference in this respect is very slight. Its life is much less under similar conditions and in most cases it offers little advantage over the granite block. It is perhaps not quite as rough and slightly easier to clean.

Modern wood block pavement has not been used a sufficient length of time to demonstrate with accuracy its life under varying

conditions. It has the great advantage of being smooth, easily cleaned and practically noiseless. On streets abutted by stores and office buildings, in front of schools, hospitals, court houses and other public buildings, its adoption may be warranted, even though it is more expensive than some other form of pavement.

It is obvious that a smooth pavement offers a much less opportunity than rough pavements for horses to secure a foothold. All of the pavements herein considered are comparatively smooth and under some conditions are slippery. This is a distinct disadvantage of modern satisfactory pavements, but the advantages of smoother, cleaner and less noisy streets are sufficient to warrant their adoption. Under certain conditions, such as when covered with a thin coating of snow, the granite block or the brick pavements may be very slippery. Pavements which are covered with a thin film of wet dirt are much more slippery than when they are clean. This is especially true of asphalt and wood block surfaces. It is, therefore, important for this reason, as well as others, that all of the pavements be kept scrupulously clean under all conditions. It is undoubtedly advisable at times to sand wood block and asphalt pavements, to prevent horses from slipping. For streets which are used largely for heavy trucking, granite block pavement will prove more satisfactory than the other pavements, being generally less slippery. In selecting the character of pavement to be recommended for the different streets, due consideration has been given to their slopes, because some of the pavements are impracticable for steep grades on account of their slipperiness.

Granite block pavement has been recommended for the streets subject to voluminous traffic, especially in the manufacturing and railroad districts.

Wood block pavement has been recommended for streets subject to moderately heavy or voluminous traffic bordered by retail business houses, where the elimination of noise is important. Brick pavement has been recommended for some streets subject to medium traffic conditions, especially in residential and light business sections. Bitulithic pavement has been recommended for streets subject to medium conditions where smooth pavement is particularly desirable on account of pleasure driving, freedom from noise, and cleanliness.

It is intended that streets subject to purely local traffic, serving the immediate residential neighborhood, shall be constructed of macadam and tar macadam in the future, as in the past. Such macadamized surfaces, if properly cared for, will prove satisfactory,

the annual cost of this construction is comparatively low, and the first cost is sufficiently low to warrant the city in continuing its use. The surface treatment of macadamized streets with oils, tars or other preservative compounds, although now in a somewhat experimental stage, gives promise of making such street surfaces much more satisfactory and probably somewhat more durable than they have proved to be in recent years.

DESCRIPTION OF KINDS OF PAVEMENT CONSIDERED

GRANITE BLOCK PAVEMENT.

The most durable pavement now known is conceded to be made of granite blocks laid upon a concrete base, the joints between the blocks being filled with Portland cement and sand in proper proportions.

For ordinary Cambridge conditions, a base 5 inches in thickness made of Portland cement, sand and well graded broken stone, or gravel in the proportions of 1.3.6 respectively, will prove satisfactory. Upon streets subject to the heaviest traffic the base should be increased to a thickness of 6 inches. Upon this base will be spread a cushion of sand at least 1 1-2 inches in thickness on which the granite blocks will be laid in the usual manner and thoroughly rammed. Fine trap rock screenings will then be thrown upon the pavement and swept into the joints until they are filled, after or during which the blocks will be further rammed if necessary. The pavement thus prepared for grouting will be thoroughly sprinkled with water. The grout will be made of one part Portland cement and one part medium fine sand, mixed with water sufficient in quantity to produce a consistency equivalent to that of thick cream. This grout will be poured over the surface of the blocks and swept into the joints, so as to completely fill the voids in them. The accomplishment of this will be indicated by the failure of the grout to settle down below the top of the blocks. The grout should remain flush with the tops of the stones and a thin sprinkling of screenings should be spread over the surface of the pavement and swept into any depressions which may exist, care being taken to have the screenings completely coated with the cement grout. After the cement has acquired its initial set the pavement should be sprinkled from time to time that it may be continuously wet or damp, to facilitate proper setting of the cement. This is of great importance during hot weather.

The Cape Ann, or Quincy granite may, perhaps, be preferable for

streets subjected to extremely heavy traffic. In such cases, the blocks should have a length of from 10 to 13 inches,—averaging not less than 11 1-2 inches,—a width of 3 1-2 to 4 inches, depth of 7 1-2 to 8 inches. For medium traffic a block of softer granite, like that obtained from New Hampshire, or Fitchburg, Mass., is recommended. These blocks should be 6 to 12 inches long, 3 1-2 to 4 inches wide, and 4 to 4 1-2 inches deep. Where the shallower blocks are used, the sand cushion may be 1 1-2 inches in thickness, but the deeper blocks should be on a cushion two inches thick.

Particular care should be taken to fence off the new work and to allow ten days, if possible, for the cement to set before traffic is turned over the new pavement. This class of paving should never be laid during freezing weather.

The estimates of average cost of new granite block pavements, including excavation and preparation of sub base, are $3.75 and $3.25 per square yard, for the large and small blocks respectively. This cost does not include the incidental expense of resetting curbstones, relaying sidewalk pavements, and other repairs and adjustments which should be made at the time the pavement is laid. The estimated annual cost of this type of pavement is $0.20 and $0.201 respectively for the large and small blocks. A description of the method of arriving at these estimates and the conditions assumed follow:

In estimating the annual cost of the various types of pavements and street construction, it has been assumed that the concrete base would in all cases last for a period of forty years. The estimated life of each kind of pavement above the concrete base, or of the several types of construction where no base is used, has been limited to the period during which it is believed that the street surface can be kept in a satisfactory condition at reasonable expense. It is assumed that at the end of such periods the cost of repairs will have become so great that it will be better economy to tear up the wearing surface and lay a new one in its place than to continue sufficient repairs to maintain the surface of the street in satisfactory condition. Furthermore, it is assumed that the kind of pavements or construction to be provided will be selected with due regard to the traffic conditions to which it is to be subjected. In those cases where the surface material is estimated to have a life of fifteen years the costs have been figured on the assumption that new materials will be placed at the end of thirty years and two-thirds of the cost of such renewal has been included in the cost for the entire period. Ordinary repairs

have been estimated on the assumption that they will be made promptly and sufficient in amount to maintain the surface of the pavements in satisfactory condition. Bonds are assumed to be issued for a term of ten years at 4 per cent. and the sinking fund is calculated on a basis of 3 1-2 per cent.

Annual Cost of Granite Block Pavement (Large Blocks).

First cost, $3.25 per square yard. Renewal cost, $2.50 per square yard. Bonds issued for 10 years. Ordinary repairs, $.02 per square yard per year.

Interest on first bond issue (.04 x 3.25 x 10)	$1.30
Sinking fund to retire first bonds (.08524 x 3.25 x 10)	2.7703
Interest on second bond issue (.04 x 2.50 x 10)	1.00
Sinking fund to retire second bond issue (.08524 x 2.50 x 10)	2.1310
Cost of ordinary repairs (.02 x 40)	.80
Cost per square yard for 40 years	$8.0013
Cost per square yard for 1 year	.2003
Cost per square yard for 1 year if bonds run 20 years	.2366

Ditto—First cost, $3.75 per square yard. Renewal cost, $2.75 per square yard. Bonds issued for 10 years. Ordinary repairs, $.02 per square yard per year.

Interest on first bond issue (.04 x 3.75 x 10)	$1.50
Sinking fund to retire first bonds (.08524 x 3.75 x 10)	2.3065
Interest on second bond issue (.04 x 2.75 x 10)	1.10
Sinking fund to retire second bond issue (.08524 x 2.75 x 10)	2.3441
Cost of ordinary repairs (.02 x 40)	.80
Cost per square yard for 40 years	$8.0506
Cost per square yard for 1 year	.20125
Cost per square yard for 1 year if bonds run 20 years	.2649

MODERN VS. OLDER GRANITE BLOCK PAVEMENTS

The granite block pavement recommended for construction in the future, while composed of the same type of blocks, will constitute a very different pavement from that which has been laid previously in Cambridge and with which the citizens are now familiar. The new pavement was first laid in Cambridge in 1910 in accordance with the preliminary report presented to the City Council by this commission. It is, therefore, possible for the citizens to compare the new pavement in Charles street with that previously laid in many other streets of the city.

The older pavements were laid without the use of cement either in the foundation or for the purpose of grouting the joints. The blocks were placed upon a sand cushion about two inches thick, which in turn was spread upon the natural earth which had been previously properly graded and in some cases rolled. After placing the blocks they were rammed and the joints were filled with sand. Pavements

laid in this way sometimes settled unequally and individual blocks were not infrequently pounded down below the general surface of the pavement. The sand filling the joints offered little support to the edges of the blocks so that they were spawled off by the impact of the horses' shoes and of the tires of the wagons. The continuous wear caused the tops of these blocks to become rounded or convex, in which condition they were frequently referred to as being "turtle backed" on account of the similarity of the shape of the upper part of the block to that of the shell or back of a turtle. Such pavements have proved to be extremely noisy because of their unevenness, which causes excessive rattling of vehicles. The wide joints, filled only with sand in the first place, form receptacles for foul dirt which accumulates on the surface of the pavement. These joints are not readily cleaned so that they retain quantities of dirt which, when dry, may be blown about as dust and when wet form mud. This type of pavement has justly proved unsatisfactory. Its chief merit is that the joints offer better foothold for horses than is furnished by other pavements.

The modern type of granite block pavement is laid upon a cement concrete foundation to prevent the unequal settlement of the blocks. The joints are filled with Portland cement grout and screenings and do not wear materially faster than the blocks, particularly if the blocks are of soft granite, which is best adapted for this class of pavement. The irregularities on the tops of the blocks are soon worn off by the impact of steel tires and horses' hoofs so that whatever roughness there may be, gradually disappears and the pavement becomes practically smooth.

The smooth surfaces of modern granite block pavements cause far less noise due to the rattling of vehicles than the older pavements, and, as the joints are completely filled with Portland cement, there is little, if any, opportunity for the dirt of the street to be retained to form mud or be blown about as dust. For the same reason, the pavement can be effectively cleaned. This pavement has the advantage of smoothness and at the same time of great durability, it is easily repaired and comparatively inexpensive when its life(as well as first cost, are taken into consideration.

RENEWAL OF OLD GRANITE BLOCK PAVEMENTS

When the streets now provided with the old type of granite block pavements become so badly worn, or out of shape as to require

that the pavement be relaid, we recommend that a concrete base of suitable thickness be provided, the blocks be re-cut, if necessary, and re-laid, and the joints completely filled with cement grout. It will undoubtedly be necessary in some cases to reject many, and perhaps occasionally, all of the old blocks as unfit for re-laying, and substitute the required number of new blocks.

The cost of re-laying granite block paving including a concrete base and re-cutting blocks is estimated at $2 per square yard. If the blocks are re-cut and not more than 25 per cent. of the new blocks substituted for old ones which are unfit for re-laying, the cost of re-paving is estimated to be $2.50 per square yard. The cost of renewing a grouted granite block pavement at the end of its economic life, is estimated to be $2.50 per square yard (large or small blocks).

BRICK PAVEMENTS

The brick pavements will consist of vitrified paving brick laid upon a Portland cement concrete base. The base will be 5 inches in thickness, and will be proportioned as described under granite block paving. The bricks will be of the best grade, laid upon a sand cushion 1 1-2 inches in thickness, thoroughly rolled or rammed. The joints will be filled with Portland cement grout proportioned as described, under granite block pavement. Suitable expansion joints will be provided adjacent to the curbs and transversely at intervals across the street. As in the case of granite block paving, care must be exercised to prevent travel upon the finished street and to keep the pavement moist, especially in hot weather, until the cement filler has had an ample opportunity to set.

The vitrified brick pavement is smooth and durable. It is easily cleaned and not excessively noisy. It is a satisfactory pavement for residental and light business districts where the traffic is moderate, or where there is only a limited quantity of heavy traffic. The life of such a pavement as is herein described is estimated to be 15 years. The brick pavements already laid in Cambridge have been constructed in the manner recommended.

The estimated cost of brick pavement built as herein recommended is $3 per square yard, and the cost of renewal at the end of a period of 15 years, is $2.10 per square yard. The estimated annual cost of this pavement is 24 cents per square yard, as shown by the following calculation;

Assume period 40 years.
" life of brick 15 years.
" life of base 40 years.
" term of bonds 10 years.
" first cost of pavement $3 per sq. yd.
" cost of renewing pavement $2.10 per sq. yd.
" cost of ordinary repairs .04 per sq. yd. per year.

Interest first bond issue .04 x 3.00 x 10=	$1.2000
Sinking fund first bond issue (3½%) .08524 x 3.00 x 10=	2.5572
Interest on second bond issue .04 x 2.10 x 10=	0.8400
Sinking fund second bond issue .08524 x 2.10 x 10=	1.7900
Interest on third bond issue .04 x 2.10 x 10 x 2-3=	0.5600
Sinking fund third bond issue .08524 x 2.10 x 10 x 2-3=	1.1933
Cost of ordinary repairs .04 x 40 years=	1.6000
Cost for 40 years per sq. yd.	9.7405
Cost for 1 year per sq. yd.	0.2435

BITULITHIC PAVEMENT

This pavement has been laid in Cambridge during every year since 1904, by the company having the patent rights, and was laid in Temple Street between Massachusetts Avenue and Austin Street in 1901.

It has consisted of a foundation, or base, composed of about 4 inches of broken stone, of a size which would pass a 2 1-2 inch screen and a wearing surface 2 inches in thickness, composed of broken stone ranging in size from that just passing a 1 1-2 inch screen to dust. This aggregate while heated to a temperature of not over 250 degrees Fahrenheit was thoroughly mixed by machinery with bituminous cement, after which and at a temperature of not less than 200 degrees Fahrenheit, it was to be spread upon the street and thoroughly rolled with a steam road roller. It was then covered with a thin coating of bituminous flush coat composition. Two coats of fine hot crushed stone were then spread over the surface of the pavement.

In the future, we would advise the use of a cement concrete base, usually 5 inches in thickness, in place of the broken stone foundation previously used. Contracts for this pavement include a guaranty for a period of 5 years. This pavement has proved quite satisfactory in Cambridge. The repairs have been made with promptness and the pavements are at the present time in good condition. Several of them have been down seven or eight years and one—Temple Street, laid in 1901—is now in satisfactory condition.

This paving is smooth, easily cleaned, and practically noiseless. It has proven to be well adapted for residential districts and for

streets used largely for pleasure and high speed driving, and under such conditions will, in our opinion, have a life of at least ten years if the repairs are promptly made.

The first cost of this pavement with concrete base and wearing surface two inches thick, is estimated at $2.65 per square yard and the cost of renewal at the end of each period of 10 years at $1.50 per square yard. The annual cost of this pavement, assuming that it will be paid for by the issue of bonds for a period of ten years in each case, is 28.4 cents per square yard, as shown by the following calculation:

Assumed period 40 years.
" life of pavement 10 years.
" life of base 40 years.
" life of bonds 10 years at 4%.
" first cost of pavement $2.65 per sq. yd.
" cost of renewing pavement $1.50 per sq. yd.

Guaranty period of five years four times.

Interest first bond issue .04 x 2.65 x 10=	$1.0600
Sinking fund first bond issue .08524 x 2.65 x 10=	2.2588
Interest second, third and fourth bond issues .04 x 1.50 x 10 x 3=	1.80000
Sinking fund second, third and fourth bond issue .08524 x 1.50 x 10 x 3=	3.83580
Cost of ordinary repairs .12 x (4 x 5) 20=	2.4000
Cost for 40 years per sq. yd.	$11.35466
Cost for 1 year per sq. yd.	0.284

WOOD BLOCK PAVEMENT

The wood block pavement should be laid upon a concrete base proportioned and made as already described. The blocks should be made from sound, prime long leaf, yellow pine, of which 90 per cent. shall be heart wood. They should be free from very coarse grain, large cross knots; unsound, loose or hollow knots, worm holes, knot holes, wind or other objectionable shakes, and checks. They should be truly rectangular and uniform, in shape, 4 inches deep, 4 inches wide and not less than 6 inches nor more than 10 inches long.

After being thoroughly sterilized by steam and the sap extracted, they must be impregnated with creosote oil of proper quality, at a rate of about 18 to 20 pounds of oil to each cubic foot of wood. After treatment when thoroughly dried, they shall not be capable of absorbing more than 4 1-2 per cent. of their dry weight of water. The blocks should be laid loosely,—not driven together,—upon a sand cushion about 1 inch in thickness. After being so laid, they should be thoroughly rammed to a firm bed, after which the joints should be

completely filled with Portland cement grout, mixed as already described. The surface of the pavement, after grouting, should be covered with a thin sprinkling of sand carefully swept into the joints. Traffic should not be allowed upon the finished pavement until the cement has had ample time to become thoroughly set.

This pavement is more nearly noiseless than any other pavement in use. On this account, it is particularly desirable in localities where it is important to avoid noise in the streets. As now prepared and laid, wood blocks have been used for street paving purposes in this country only a comparatively few years, so that it is not possible to base any estimate of its probable life upon so prolonged an experience as is possible with most of the other pavements. It has been laid, however, in many cities and under various conditions, some of which are severe. Your Commission has examined this type of pavement in Springfield, New York, Philadelphia and elsewhere, and has made inquiries of large department stores, in front of which it has been laid. These inquiries, without exception, have resulted in favorable comments by the proprietors of these retail houses. Some letters giving these comments are reproduced in Appendix V.

This pavement is smooth, there is little opportunity for the accumulation of dirt, and it can be easily cleaned. We believe that if constructed of the best materials and laid as herein specified upon the streets suggested, it will have a life of 15 years, and that it will prove an ideal pavement in these cases.

The estimated first cost of this pavement is $3.75 per square yard, and the cost of renewal $2.75 per square yard. The annual cost, assuming that the pavement will be paid for by the issue of bonds for a period of ten years in each case, is estimated at 2.92 per square yard, as shown by the following calculation:

Assumed period 40 years.
" life of blocks 15 years.
" life of base 40 years.
" first cost of pavement $3.75 per sq. yd.
" cost of renewing $2.75 per sq. yd.
Guarantee 5 years.
Life of bonds 10 years at 4%.

Interest first bond issue .04 x 3.75 x 10=	$1.500
Sinking fund first bond issue .08524 x 3.75 x 10=	3.1965
Interest on second bond issue .04 x 2.75 x 10=	1.100
Sinking fund second bond issue .08524 x 2.75 x 10=	2.3441
Interest on third bond issue .04 x 2.75 x 10 x 2-3=	0.7333
Sinking fund third bond issue .08524 x 2.75 x 10 x 2-3=	1.5627
Cost of ordinary repairs .05 x 25=	1.250
Cost for 40 years per sq. yd.	$11.6866
Cost for 1 year per sq. yd.	0.292

TAR MACADAM

This is a term which is somewhat loosely applied to different combinations of bituminous materials, such as coal tar, and asphaltic oils mixed with or applied to cracked stone to produce a bituminous concrete, and it is now being used for building streets which are subject to traffic conditions which are moderate, but too severe for the ordinary macadam. The best combination of bituminous materials and the most effective method of construction of this type of pavement have not yet been fully determined. It is to be expected, however, that from the many experiments now being tried, a pavement will be evolved which will be well suited to streets subject to light traffic.

No recommendation is made at this time as to any particular method of construction of this pavement to be adopted, as we believe this can better be determined later, after further experience with the various materials and processes now being tried.

Pavements of this kind will be smooth and practically noiseless. They will be well suited to streets having very light traffic, and will be satisfactory in residential districts. The first cost of this pavement of entirely new construction, is estimated at $1.25 per square yard, and the cost of renewal at 50 cents per square yard. The annual cost of this pavement, assuming for comparison with cost of other pavements, that it will be paid for by the issue of bonds for terms of ten years, and that interest at 4 per cent. will be paid on the cost of renewal for five years, is 29.6 cents per square yard, as shown by the following calculation:

Assumed period 10 years.
" life of pavement 10 years.
" life of bonds 10 years at 4%.
" first cost of pavement $1.25 per sq. yd.
" cost of resurfacing pavement at end of 5 years, 50c per sq. yd.

Interest first bond issue .04 x 1.25 x 10=	$0.5000
Sinking fund first bond issue .08524 x 1.25 x 10=	1.0655
Resurfacing cost .50=	.50
Resurfacing interest .04 x .50 x 5=	0.10
Cost of ordinary repairs .10 x 8=	0.8000
Cost for 10 years per sq. yd.	$2.9655
Cost for 1 year per sq. yd.	.296

MACADAM PAVEMENT

The use of macadam will be continued on many of the streets subject to light local traffic, for which it is both satisfactory and economical. If well constructed and properly maintained, it will have

a life of at least ten years and the cost of repairs will not be found to be excessive. These two facts are demonstrated by the data given in Table 6.

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Table 6.—Dates and Cost of Reconstruction of a Few Macadam Streets in Cambridge. No other expenditures were made for repairs upon these streets between 1900 and 1910.

Date	Streets	Total Cost	Yards	Cost per sq. yard	Cost per Sq. Yd. per year
1900	Bigelow	$668.25	2044	.32	.032
1902	Clinton	584.00	1337	.43	.043
1902	Lee	1239.00	3240	.38	.038
1900	Hanco	984.12	2647	.37	.037
1906	Ellery	1099.50	2790	.39	.039
1906	Trowbridge	319.00	1133	.28	.028
1909	Remington	311.88	785	.41	.041

The data contained in Table 6 indicate that macadam construction is warranted upon streets for which it is adapted. Based in part upon the data given in this table, the annual cost of repairs after the year in which the street is constructed, and for a period of 9 years, is estimated at six cents per square yard. Where the construction is entirely new, the streets will be built of trap rock of the usual sizes. The stone will be eight inches thick after rolling.

A very large proportion of the streets are now macadamized, so that most of this type of construction will consist of resurfacing. In such cases the old stone will be picked up, covered with from three to five inches of new stone and thoroughly rolled.

The building of Macadam Streets involves the least first cost of any type of construction herein discussed, and is estimated at $1 per square yard for new work. The annual cost of this pavement has been calculated for purposes of comparison upon the assumption that it will be paid for by the issue of bonds running for a term of ten years, although the Act of 1910 prohibits the borrowing of money for such construction, and we do not recommend it. The estimated annual cost of this pavement, assuming that it will have a life of 10 years, and that it will be laid only in residential districts and upon streets subject to light and local traffic, is $0.179 per square yard, as shown by the following calculation:

Assumed period 10 years.
" life of pavement 10 years.
" life of bonds 10 years at 4%.
" first cost of pavement $1 per sq. yd.

Interest first bond issue .04 x 1.00 x 10=	$0.4000
Sinking fund at 3½% int., first bond issue .08524 x 1.00 x 10=	0.8524
Cost of ordinary repairs .06 x 9 years	.54
Cost for 10 years per sq. yd.	$1.7924
Cost for 1 year	0.179

COMPARISON OF LIFE AND COST OF VARIOUS PAVEMENTS

A comparison of the estimated life and cost of various pavements in Cambridge under conditions best suited to each, may be made from the data given in Table 7.

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Table 7.—Estimated Life and Cost of Various Pavements

Kind of Pavement	Estimated Life	First Cost per sq. yard	Annual Cost per sq. yard
*Macadam	10	$1.00	$.179
*Granite Blocks grouted with Portland Cement	20	3.25	.2003
**Ditto	20		.2366
*Brick grouted with Portland cement	15	3.00	.2435
*Bitulithic on concrete base	10	2.65	.2840
*Wood Blocks grouted with Portland Cement	15	3.75	.2920
*Tar Macadam	10	1.25	.2960

NOTES:

* Bonds to run for a term of 10 years. To make all calculations upon same basis, macadam and Tar Macadam are assumed to be paid for by issue of bonds for terms of 10 years.

It is not advisable, however, to borrow money for such construction.

** Bonds to run for a term of 20 years.

In considering the annual cost of the several types of construction it should be remembered that the conditions in each case are different, so that it should not be assumed that any one pavement is necessarily cheaper than another because of the unit costs given. For example, the annual cost of macadam is given as 17.9 cents per square yard, whereas that of granite block pavement is 20.03 cents. But if the macadam were to be laid where the granite pavement will be, its life would be very much shorter than has been assumed in calculating its annual cost, and therefore its cost would be correspondingly increased; in fact, it would be increased so much that the macadam

would be found to be far more expensive than the granite pavement. The figures given are interesting, although conceded to be approximate only, and they do show that some of the pavements which are high in first cost are not unreasonably so when due allowance is made for their wearing qualities.

RECOMMENDATIONS FOR NEW CONSTRUCTION

The Commission has made a very careful study of the streets of Cambridge, having taken several views and held more than twenty meetings. After giving consideration to all the conditions, we recommend that pavements be constructed in accordance with the data given in Table 8, and as shown upon the accompanying plan. The amount of work to be done has been apportioned so that the expenditures will not vary greatly from $100,000 per year, and the aggregate cost for the entire ten years will be about $1,000,000.

It is believed that this estimate is ample for the work recommended, but it is recognized that there will be demands for the pavement of some streets not included in this schedule. It is obviously impossible to foresee all the conditions which may arise, and particularly the growth of districts now just beginning to be developed. While some of these demands will be well founded and should be favorably acted upon, it is to be hoped that funds for such construction will be provided without curtailing the provisions for carrying out the new construction and the renewal of old pavements recommended herein.

Provision has already been made for pavements to be laid during the season of 1911 as follows:

Boylston Street, Harvard Square to Elliot Street, bitulithic.
Mt. Auburn Street, Sparks Street to Coolidge Avenue, bitulithic.
Broadway, Highland Avenue to Prospect Street, bitulithic.
Commercial Avenue, First Street to the Canal Bridge, granite blocks.
Putnam Avenue, Western Avenue to River Street, brick.
First Street, Canal Bridge to Main Street, granite blocks.

All this work is needed at once, and we approve the course taken in providing for it during the current year.

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Table 8.—Proposed New Pavements to be Laid in 10 Years, 1912-1921.

Street	Location		Kind of Pavements	Length in Feet	Area Sq. Yards	Price per Sq. Yard	Cost
	From	To					
1912							
Mass. Ave.	Waterhouse	Garden	Bitulithic	1,000	4,980	$2.65	$13,200
Mt. Auburn St.	Coolidge Ave.	B. & M. R. R.	Bitulithic	360	14,260	2.65	37,800
Mt. Auburn St.	Opposite	B. Elev. Carhouse	Granite Block		614	3.25	2,000
Cambridge St.	Peabody	Mass. Ave.	Bitulithic		1,352	2.65	3,600
Erie St.	Waverly	Brokline St.	Granite Block	880	2,641	3.25	8,600
							$65,200
1913							
Broadway	Windsor	Prospect	Granite Block	1,720	6,712	3.25	$21,900
Brattle and Eliot Sq.			Brick	500	3,820	3.00	11,500
Boylston St.	Eliot St.	Charles River	Bitulithic	1,020	4,350	2.65	11,600
Hampshire St.	Inman Sq.	Somerville Line	Granite Block	260	900	3.25	3,000
Brookline St.	Granite	Charles River	Bitulithic	615	2,130	2.65	5,700
Somerville Ave.	Somerville Line	White	Granite Block	360	840	3.25	2,800
Green St.	Magazine	Landsdowne	Granite Block	1,970	5,855	3.25	19,100
Concord Ave.	Waterhouse	Garden	Bitulithic	375	1,395	2.65	3,700
Waterhouse St.	Mass. Ave.	Garden	Bitulithic	700	3,380	2.65	9,000
Eliot St.	Eliot Sq.	Boylston	Brick	360	2,000	3.00	6,000
							$94,300
1914							
Mass. Ave.	Pleasant	Quincy Sq.	Wood Block	3,641	15,465	3.75	$58,000
Concord Ave.	Huron Ave.	B. & M. R. R.	Brick	3,320	12,325	3.00	37,000
Mt. Auburn St.	Putnam Ave.	Brattle Sq.	Bitulithic	2,310	10,446	2.65	27,700
							$122,700
1915							
Mass. Ave.	Blake	Alewife Brook	Bitulithic	5,480	15,400	2.65	$40,900
Amherst St.	Mass. Ave.	Wadsworth	Granite Block	2,520	11,435	3.25	37,200
Wadsworth St.	Main	Huron Ave.	Granite Block	410	1,252	3.25	4,100
Garden St.	Concord Ave.	Huron Ave.	Bitulithic	2,430	9,205	2.65	24,400
							$106,600
1916							
Harvard St.	Sixth	E. side Windsor	Brick	2,350	8,580	3.00	$25,800
Harvard St.	E. side Windsor	Quincy	Bitulithic	5,932	23,793	2.65	63,100
							$88,900
1917							
Sixth St.	Harvard	Gore	Granite Block	3,415	12,930	3.25	$42,100
Sherman St.	Huron Ave.	B. & M. R. R.	Brick	2,670	8,100	3.00	24,300
Columbia St.	Lafayette Sq.	Harvard	Bitulithic	1,350	4,600	2.65	12,200
Kirkland St.	Cambridge	Somerville Line	Bitulithic	2,820	14,650	2.65	38,900
							$117,500
1918							
Walden St.	Mass. Ave.	Huron Ave.	Bitulithic	3,930	14,025	2.65	$37,200
Huron Ave.	Walden	Aberdeen Ave.	Bitulithic	3,360	16,000	2.65	42,400
Aberdeen Ave.	Huron Ave.	Mt. Auburn	Bitulithic	1,290	7,570	2.65	20,100
							$99,700
1919							
Cedar St.	Mass. Ave.	Rindge Ave.	Brick	1,550	4,620	3.00	$13,900
Rindge Ave.	Sherman	Cedar	Brick	480	1,460	3.00	4,400
Magazine St.	Green	Granite	Bitulithic	3,850	14,570	2.65	38,700
Binney St.	Commercial Ave.	B. & A. R. R.	Granite Block	1,920	10,825	3.25	35,200
							$92,200
1920							
Pacific St.	Albany	Brookline	Granite Block	1,275	3,785	3.25	$12,400
Lansdowne	Mass Ave.	Pacific	Granite Block	1,250	4,700	3.25	15,300
Franklin St.	Landsdowne	Sidney	Granite Block	465	1,400	3.25	4,600
Franklin St.	Brookline	Magazine	Granite Block	870	2,581	3.25	8,400
Munroe St.	Second	Sixth	Granite Block	1,660	6,192	3.25	20,200
Austin St.	Main	Prospect	Bitulithic	1,680	6,160	2.65	16,400
Webster Ave.	Hampshire	Cambridge	Granite Block	2,150	8,070	3.25	26,300
							$103,600
1921							
Third St.	Charles	Spring	Granite Block	520	2,060	3.25	$6,700
Spring St.	Third	First	Granite Block	800	3,000	3.25	9,800
Second St.	Gore	Cambridge	Granite Block	200	750	3.25	2,500
Second St.	Cambridge	Thorndike	Wood Block		1,930	3.75	7,300
Second St.	Thorndike	Munroe	Granite Block	1,750	6,650	3.25	21,700
Second St.	Cedar	Mass. Ave.	Brick	1,690	6,270	3.00	18,900
Rindge Ave.	Main	Amherst	Granite Block	510	1,513	3.25	5,000
Hayward St.	Main	Amherst	Granite Block	675	2,505	3.25	8,200
Carleton St.	Harvard	Cambridge	Bitulithic	2,270	7,640	2.65	20,300
Columbia St.							
							$100,400

A brief description of each piece of work recommended by us, together with the more important considerations affecting the decision of the Commission, follows:

Massachusetts Avenue from Waterhouse Street to Garden Street, a distance of about 1000 feet, is the only portion of Massachusetts Avenue which is not paved or constructed with tar macadam. The brick pavement in Harvard Square extends northwesterly to Garden Street and a bitulithic pavement is already laid from Waterhouse street northerly. It is recommended that bitulithic pavement be laid on this part of Massachusetts Avenue in 1912.

Cambridge Street from Peabody Street to Massachusetts Avenue, a distance of 360 feet, is a short portion of the street connecting with Massachusetts Avenue. It should be paved in connection with the paving of that portion of Massachusetts Avenue lying adjacent to the Common. This will be a continuation of the bitulithic pavement already laid in Cambridge Street and will connect with similar pavements in Massachusetts Avenue.

Mount Auburn Street from Coolidge Avenue to the Boston & Maine Railroad, a distance of about 2795 feet, traverses a residential district, and is a link in one of the main lines of travel through the city. There are two car tracks in it which tend to restrict the traffic to a narrow portion of the street on each side. Bitulithic pavement has already been laid or provided for from Harvard Square westerly to Coolidge Avenue, and it is recommended that a similar pavement be constructed the remainder of the distance to the Boston & Maine Railroad in 1912, except in front of the Boston Elevated Railway Company's carhouse, where a granite block pavement should be laid, because of the number of tracks crossing the street. It is felt that such small blocks of bitulithic pavement will not prove durable, hence the recommendation of granite block pavement.

Erie Street from Waverly Street to Brookline Street, a distance of about 880 feet, is located in a manufacturing district and is subjected to heavy traffic. It furnishes a connection between Brookline and Albany Streets. It should be paved with granite blocks in 1912.

Broadway, Windsor to Prospect Street, a distance of 1720 feet, is one of the lesser thoroughfares from Boston to the center of Cambridge. The part nearer Boston traverses a store and residential district and is subject to voluminous traffic, largely of a local nature.

Two car tracks are laid in this street, thus confining the traffic to a narrow strip on each side. Between Windsor and Prospect Streets the traffic conditions are such as to require the extension of the granite block pavement which is now laid from Kendall Square to Windsor Street. This extension should be made in 1913 and will complete the pavement of this thoroughfare.

Brattle and Elliot Squares, having a length of about 500 feet, are subject to a light business traffic. They are at the present time in bad condition, largely because of the subway construction. These squares should be paved with brick in 1913, after the subway work has been completed.

Massachusetts Avenue from Pleasant Street to Quincy Square, a distance of 3641 feet, is now being resurfaced with tar macadam. The subway has been constructed under this portion of the avenue, partly in trench and partly in tunnel. In both cases the work directly or indirectly caused some disturbance of the street surface, and it does not seem wise at the present time to lay a durable pavement, because of the liability of further settlement during the next few months. The tar macadam now being laid, with a moderate amount of surface coating each year, will furnish a satisfactory street for the next few years, after which a durable pavement should be laid. There are two car tracks in this street, and the number of cars using them is very large. The noise from these rapidly moving cars is very objectionable. The avenue passes through a residential district so that an effort should be made to reduce the noise to a minimum. For this reason we recommend a wood block pavement for this portion of Massachusetts Avenue and that it be laid in 1914.

Massachusetts Avenue from Blake Street to Alewife Brook, North Side, a distance of 5480 feet. This portion of the avenue is constructed of tar macadam, which, with a moderate amount of renewal of wearing surface, can be made to give reasonable satisfaction for a few years longer. It is expected that it will be necessary to reconstruct that portion of the avenue now paved with Hassam pavement, in 1915, and it is recommended that bitulithic pavement be laid on the north side at the same time.

Boylston Street from Eliot Street to the Charles River, a distance of 1020 feet, is a main thoroughfare from Harvard Square to Brighton, and is the most direct route from Cambridge to Soldiers'

Field. It is subject to considerable heavy teaming, and has one car track extending to the power house. It is recommended that this portion of the street be paved with bitulithic in 1913, thus completing the pavement of this thoroughfare, the northerly portion having been provided for in 1911.

Hampshire Street from Inman Square to the Somerville Line, a distance of about 260 feet, should be paved with granite blocks in 1913, thus completing the pavement of this thoroughfare.

Brookline Street from Granite Street to the Charles River, a distance of 615 feet, is a part of the main thoroughfare connecting Cambridgeport with Brookline. It contains two car tracks in a reservation outside the paved way. The pavement of this street should be completed and it is recommended that it be paved with bitulithic pavement in 1913.

Somerville Avenue from the Somerville Line to White Street, a distance of 360 feet, is a short stretch of unpaved street, which is subject to considerable through traffic. It should be paved in 1913 with granite blocks.

Green Street from Lansdowne Street to Magazine Street, a distance of about 1970 feet, traverses a residential district. It is used by teams calling at the rear entrance of business houses located on Massachusetts Avenue, and is thus subject to moderately heavy though somewhat local traffic. It is at the present time in very poor condition. A granite block pavement should be laid in 1913.

Concord Avenue from Waterhouse Street to Garden Street, a distance of 375 feet, should be paved with bitulithic pavement in 1913, at the time Waterhouse Street is paved. This, with Waterhouse Street, forms a short connecting link between Massachusetts Avenue and Concord Avenue and Garden Street.

Waterhouse Street from Massachusetts Avenue to Garden Street, a distance of 700 feet, is a short street connecting Concord Avenue with Massachusetts Avenue and bordering the Cambridge Common. It is recommended that bitulithic pavement be laid in 1913, connecting that already laid in Concord and Massachusetts Avenues.

Elliott Street from Boylston Street to Elliott Square, a distance of 360 feet, is on the edge of a thickly populated district, and near the proposed Harvard Square terminal and car barn of the Boston

Elevated Railroad. It should be provided with a bitulithic pavement in 1913.

Concord Avenue from Huron Avenue to the Boston & Maine Railroad, a distance of 3320 feet, is one of the thoroughfares from Cambridge to Belmont and the West. It passes through a sparsely built section of the city and does not contain car tracks.

The Massachusetts Highway Commission has been requested to make Concord Avenue westerly of Huron Avenue a State highway. There seems to be good reason for this request, in that it serves primarily as an interurban thoroughfare, and is of comparatively little local importance. If the Commission should act favorably upon this petition, Cambridge will be relieved from building and maintaining this avenue in the future.

We feel, however, that in view of the lack of assurance that this will be made a State highway, we are not justified in omitting it from the general plan of improvement recommended. We therefore advise that if the city is obliged to maintain the street in the future, that the portion between Huron Avenue and the Boston & Maine Railroad be paved with vitrified bricks in 1914. Should the Massachusetts Highway Commission ultimately determine that it will take over this avenue, the expenditure herein recommended can be diverted to other useful purposes.

Mount Auburn Street from Putnam Street to Brattle Square, a distance of about 2310 feet, has been used during the construction of the subway by surface cars formerly on Massachusetts Avenue between Putnam and Harvard Squares. Two tracks were temporarily laid for this purpose. These tracks have recently been removed and the street reconstructed of tar macadam. It is believed that this construction will prove satisfactory during the next three or four years, after which time it will be advisable to provide a more durable pavement.

This portion of Mount Auburn Street serves as a cut-off between Putnam and Brattle Squares for traffic passing through Mount Auburn Street and the easterly portion of Massachusetts Avenue which does not need to go through Harvard Square. It is subject to voluminous traffic and should be paved with bitulithic pavement in 1914.

Amherst Street from Massachusetts Avenue to Wadsworth Street is located in one of the portions of the city which are now being rapidly developed for manufacturing purposes. Present indications

lead to the conclusion that this street will be subject to a voluminous and heavy traffic, and that it will require a durable pavement in the near future.

Wadsworth Street from Main Street to Amherst Street, a distance of 410 feet, is in the manufacturing district, and with Amherst Street, forms an important connecting thoroughfare between Massachusetts Avenue and Main Street near the Charles River. This street should be paved with granite blocks in 1915.

Garden Street from Concord Avenue to Huron Avenue, a distance of 2430 feet, passes through a residential district. It contains no car tracks, and most of the traffic is of a local character, although it furnishes in connection with Sherman and other streets a route to North Cambridge. Bitulithic pavement should be laid in 1915.

Harvard Street from Sixth Street to the East Side of Windsor Street, a distance of 2350 feet, passes through a thickly settled residential district, and is subject to much light traffic, and a moderate amount of heavy traffic. A large portion of the automobile traffic from the west leaves Harvard Street before reaching this part of the street, in order to take a direct route for Harvard Bridge. It is recommended that brick pavement be laid in 1915.

Harvard Street from East Side of Windsor Street to Quincy Square, a distance of 5932 feet, passes through a residential district, and is one of the main thoroughfares of the city, particularly for automobiles. It contains no car tracks, and is now in fair condition, a large portion of it having been re-surfaced with tar macadam. It will require paving in 1916, and it is recommended that bitulithic pavement be laid.

Sixth Street from Harvard Street to Gore Street, a distance of 3415 feet, is in a thickly settled manufacturing and residential district. It is an important thoroughfare, and subject to heavy traffic. It should be paved with granite blocks in 1917.

Sherman Street from Huron Avenue to Boston & Maine Railroad, a distance of 2670 feet, passes through a residential district which is not at the present time thickly populated. It contains no car tracks, but there is some heavy teaming over it, particularly from the brick yards. It is a link in a secondary thoroughfare from Harvard Square to North Cambridge. Brick pavement should be laid in 1917.

Columbia Street between Lafayette Square and Harvard Square, a distance of about 1350 feet, is a connecting link between Harvard

Street and Massachusetts Avenue for automobile traffic going east and west. This street should be paved with bitulithic pavement in 1917.

Kirkland Street from Cambridge Street to the Somerville Line, a distance of 2820 feet, contains no car tracks, and passes through a residential district. It is a main thoroughfare, and should be paved with bitulithic pavement in 1917.

Walden Street from Huron Avenue to Massachusetts Avenue, a distance of 3930 feet, is an important portion of the cross-town thoroughfare from Mount Auburn to Massachusetts Avenue. At its junction with Sherman Street it will be possible for traffic to turn through the Sherman Street thoroughfare to North Cambridge, or continue along Walden Street to Massachusetts Avenue near Porter Station. This street should be paved with bitulithic pavement in 1918.

Huron Avenue from Walden Street to Aberdeen Avenue, a distance of 3360 feet, passes through a residential district which is growing very rapidly. It is now subject mostly to local traffic, but if it was in a satisfactory condition it would undoubtedly be much travelled by automobiles going to and from the Fresh Pond Park district. It contains two car tracks and is destined to become an important cross-town thoroughfare. Bitulithic pavement should be laid on this avenue in 1918.

Aberdeen Avenue from Mount Auburn Street to Huron Avenue, a distance of 1290 feet, contains two car tracks and is the main approach from the southwest to the Huron Avenue district, and a link in the cross-town thoroughfare. It is recommended that bitulithic pavement be laid in this street in 1918.

Cedar Street from Massachusetts Avenue to Rindge Avenue, a distance of 1550 feet, is the northerly end of the secondary route from Harvard Square to North Cambridge. It should be paved in 1919 with brick, as the traffic is likely to be moderately heavy.

Rindge Avenue from Sherman Street to Cedar Street, a distance of 480 feet, is a short connecting link in the secondary thoroughfare to North Cambridge. It will be subjected to moderately heavy traffic and should be paved with brick in 1919.

Magazine Street from Green Street to Granite Street, a distance of 3850 feet, is one of the main cross thoroughfares of the city and lies in a thickly settled residential district. It contains no car tracks and should be paved with bitulithic pavement in 1919.

Binney Street, Commercial Avenue, to the Boston & Albany Railroad, a distance of 1920 feet, is in the manufacturing district, and subject to heavy traffic. It is recommended that granite block pavement be laid on this street in 1919.

Pacific Street from Albany Street to Brookline Street, a distance of 1275 feet, is in the manufacturing district, and is subject to considerable heavy traffic. The district is growing and traffic due to manufacturing industries will undoubtedly become greater as time goes on. It is recommended that granite blocks be laid in 1920.

Lansdowne Street from Massachusetts Avenue to Pacific Street, a distance of 1250 feet, is in a manufacturing district, which is growing rapidly. While a portion of this street has not as yet been accepted, it seems safe to assume that the development of the district will require its acceptance within a few years. A granite block pavement should be provided for this street in 1920, provided, of course, that the street is accepted by that time.

Franklin Street from Lansdowne Street to Sydney Street and from Brookline Street to Magazine Street, distances of 465 and 870 feet respectively, is in a very thickly settled residential district, and is subject to heavy traffic from a manufacturing district. It contains no car tracks. A short portion of the street west of Sydney Street is now paved with granite blocks, and it is recommended that this pavement be extended to Lansdowne Street on the east, and Magazine Street on the west in 1920.

Monroe Street from Second Street to Sixth Street, a distance of 1660 feet, is in a heavy manufacturing district, and is subject to heavy traffic. It should be paved with granite blocks in 1920.

Austin Street from Main Street to Prospect Street, a distance of 2260 feet, contains no car tracks, and parallels Massachusetts Avenue. Though it does not have much through traffic, it is subject to a considerable amount of local traffic. It is recommended that bitulithic pavement be laid in 1920. It is believed to be unnecessary to provide a durable pavement for the westerly portion of this street lying between Prospect and Inman Streets.

Webster Avenue from Cambridge Street to Hampshire Street, a distance of 2150 feet, is a minor thoroughfare likely in the future to be subject to heavy traffic, and it is therefore recommended that it be paved with granite blocks in 1920.

Third Street from Charles Street to Spring Street, a distance

of 520 feet, is located in a residential district, but is subject to considerable heavy traffic. Northerly of Spring Street, the grade is such that heavy teaming between Third and Spring Street and Main Street will pass through Spring Street and Second Street, rather than go over the hill. It is recommended that this route be paved in 1921 with granite block pavement.

Spring Street from Third Street and First Street, a distance of 800 feet, should be paved with granite blocks in 1921 as a link in the Third Street route to Main Street.

Second Street between Gore Street and Monroe Street. This street is located in a manufacturing and residential district, which is destined to grow materially. This street will be subjected in the future to much heavy traffic, and should be paved with granite block pavement from Gore Street to Cambridge Street, a distance of 200 feet, in 1921.

From Cambridge Street to Thorndike Street, opposite the court-house, where it is desirable to prevent noise as much as possible, a wood block pavement should be laid for a distance of 510 feet in 1921.

Between Thorndike and Monroe Streets, a distance of 1750 feet, granite block pavement should be laid in 1921.

Rindge Avenue between Cedar Street and Massachusetts Avenue, a distance of 1690 feet, will be subject to moderately heavy traffic and should be paved with brick in 1921.

Columbia Street from Harvard Street to Cambridge Street, a distance of 2270 feet, constitutes a part of a somewhat important cross-town route. This portion of Columbia Street should be paved with bitulithic pavement in 1921.

Hayward Street from Main Street to Amherst Street, a distance of 510 feet, is in a growing manufacturing district and should be paved with granite blocks in 1921.

Carleton Street from Main Street to Amherst Street, a distance of 675 feet, is in a growing manufacturing district, and will require paving by 1921, when granite blocks should be laid.

Brattle Street is a popular thoroughfare for automobilists, substantially paralleling Mount Auburn Street between Brattle Square and Mount Auburn Cemetery. It is a wide street, without car tracks,

and runs through a residential district. It is subject to so much motor traffic that ordinary macadam will not prove durable, and the conditions do not seem severe enough to warrant the construction of a bitulithic pavement. In the next few years the street can be maintained in good condition by constructing with tar macadam, according to the methods now in use.

As already discussed, many experiments are now being tried with this character of construction, and it is believed that within a comparatively short time a method of construction will be found and materials will be proved suitable for the construction of a street subject to traffic conditions like those of Brattle Street, so that at a moderate cost such a street can be constructed with tar macadam and prove perfectly satisfactory. We have, therefore, not included Brattle Street in the schedule of streets to be provided with durable pavement, but have assumed that it will be maintained in good condition for the next few years with ordinary tar macadam, and that as it becomes necessary to renew this construction, a more durable tar macadam will be provided at a cost somewhat in excess of that attending the construction of tar macadam at present. Such a cost would probably not exceed $1.50 per square yard, at which price the construction of this street of improved tar macadam would cost $48,135. This expenditure can be spread over two or three years so as not to draw too heavily upon the tax levy of any one year.

Craigie Street and Mason Streets are subjected to conditions similar to those of Brattle Street, and should be treated in a similar manner.

Table 9.—Data Relating to Granite, Brick and Hassam Pavements Laid Prior to 1911, with Estimates of Dates and Cost of Renewals.

Street	Location		Pavement			Length Ft.	Area Sq. Yards	Price per sq. yd.	Cost
	From	To	Kind	Date Laid	Present Condition				
1912									
Mass. Ave.	Lafayette Sq.	Pleasant St.	*Wood Block	°			12,320	$3.75	$46,200
Brattle St.	Harvard Sq.	Brattle Sq.	*Wood Block	°		430	3,520	3.75	13,200
Main St.	First St.	Lafayette Sq.	Granite Block	°		5,700	27,260	2.50	68,200
Broadway	Main St.	Sixth St.	Granite Block	1889	Poor	1,160	4,400	3.25	14,300
									$141,900
1913									
Western Ave. ..	Central Sq.	Charles River	Granite Block	1893-94	Poor	3,160	12,190	2.50	$30,500
Prospect St. ...	Austin St.	Cambridge St.	Brick	1899	Poor	2,840	9,000	2.10	18,900
									$49,400
1914									
Portland St. ...	Main St.	Hampshire St.	Granite Block	1900		1,250	4,915	2.00	$ 9,900
†Cambridge St.	Bridge St.	Third	Granite Block	1873	Poor	1,080	4,650	3.25	15,200
									$25,100
1915									
xxMass. Ave. ...	Bracket Pl.	Alewife Brook	**Bitulithic	1907	Poor	6,900	22,000	1.50	$33,000
Portland St. ...	Hampshire St.	Cambridge St.	Granite Block	1899-00			8,606	2.00	17,300
									$50,300
1916									
First St.	Main St.	Cambridge St.	Granite Block	1895-96	Fair	3,100	14,220	2.00	$25,600
'Bridge St.	Craigie Bridge	East St.	Granite Block	1871		3,150	13,686	3.75	51,400
"Bridge St.	East St.	Somerville Line	Granite Block	1872					
									$77,000
1917									
Gore St.	Bridge St.	Somerville Line	Granite Block	1893-95	Poor	2,630	10,400	2.00	$20,800
Mass. Ave.	Harvard Bridge	B. & A. R. R.	Brick	1901	Fair		9,000	2.10	18,900
									$39,700
1918									
									$9,100
1920									8,800
Broadway	Burleigh St.	Clark St.	Granite Block	1901	Fair		4,550	2.00	20,700
Brookline St. ...	Mass. Ave	Valentine St.	Brick	1901-02	Good		4,190	2.10	19,200
xxxCamb'ge St.	Third	B. & A. R. R.	Granite Block	1873	Fair		8,250	2.50	12,100
Mass. Ave.	B. & A. R. R.	Lafayette Sq.	Brick	1904	Good		9,100	2.10	
River St.	Green St.	Kinnard St.	Brick	1902	Good		5,750	2.10	$69,900

*Present granite block pavement to be superseded by wood block.
**Present Hassam pavement to be covered with Bitulithic.
°Pavement torn up on account of subway work.
†Renewed 1902.

xxHeavy Maintenance.
xxxRelaid 1893, Repaved 1900.
'Repaved with new block 1890.
"Relaid 1890.

RECOMMENDATIONS FOR RENEWAL OF EXISTING GRANITE, BRICK AND HASSAM PAVEMENTS

Obviously, it is useless to provide for more and better pavements unless the existing pavements are to be renewed when necessary, and maintained in good order. We, therefore, recommend that the existing pavements be relaid when found necessary, and give in Table 9 an estimate of the date when each pavement will probably require renewal, and the cost of same. This table also gives the location and kind of pavements, the date when each was laid, and its present condition.

The estimated cost of the renewal of granite, brick and Hassam pavements, during the ten years from 1912 to 1921, or an average of about $45,000 per year.

A brief description of pavements to be relaid follows:

Massachusetts Avenue from Lafayette Square to Pleasant Street, a distance of 490 feet, passes through the center of the most important office and retail store district in Cambridge. The traffic is voluminous, and during much of the time larger numbers of people are passing on the sidewalks, crossing the street, or transacting business, under conditions which make a noisy street particularly objectionable. At the present time, the street is in poor condition, due to subway operations. It has been paved with granite blocks for many years, and after the completion of the subway, these blocks which had been taken up during the process of construction, were relaid upon a sand cushion, and with sand joints.

It has been decided to make no effort to provide a durable pavement on a concrete base until 1912, on account of the danger of further settlement of the material with which the subway trench was backfilled. In 1912 this portion of Massachusetts Avenue should be paved, and we recommend that a wood block pavement be laid upon a suitable concrete base.

Brattle Street, Harvard Square to Brattle Square, has been torn up on account of subway construction, and in 1912 should be provided with durable pavement laid upon a suitable concrete base. We recommend that this pavement consist of wood blocks, laid upon a concrete base.

Main Street from First Street to Lafayette Street was paved with granite blocks many years ago. This pavement was taken up

during the construction of the subway, and has been re-laid in a temporary manner; in 1912 the granite blocks should be removed and a concrete base provided, and as many of the blocks as are suitable should be relaid upon it. Many of the blocks in that street are poor, and must be replaced by new blocks. For this reason the cost of reconstruction is estimated at $2.50 per square yard.

Broadway from Main Street to Sixth Street is paved with granite blocks laid in 1889. It is now in poor condition, and should be relaid in 1912. The blocks are very poor, and it is believed that most of them will not be suitable for relaying. The cost of the reconstruction has therefore been estimated at a cost of a new pavement, $3.25 per square yard.

Western Avenue from Central Square to Charles River was paved in 1893 and 1894 with granite blocks. It is now in poor condition, and should be reconstructed in 1913. Many of the blocks can be relaid, although a substantial number would have to be discarded and replaced with new blocks. For that reason the cost of renewal is estimated at $2.50 per square yard.

Prospect Street from Austin Street to Cambridge Street was paved with brick in 1889. This street requires material repairs each year, and should be reconstructed in 1913.

Portland Street from Main Street to Hampshire Street was paved with granite blocks in 1900. The blocks are in good condition for relaying, and it is our judgment that this pavement should be relaid in 1914 upon a concrete base.

The estimated cost of such renewal is $2 per square yard.

Cambridge Street from Bridge Street to Third Street was paved with granite blocks in 1873. It was repaved in 1893, and is now in bad condition. It is believed that most of the blocks are unsuitable for relaying, and therefore the cost has been estimated on the basis of an entirely new pavement, at $3.25 per square yard.

Massachusetts Avenue from Bracket Place to Alewife Brook was provided with Hassam pavement in 1907. By 1915 it will be necessary to provide a new pavement for this portion of Massachusetts Avenue. The Hassam pavement will be in such a condition that it can serve as a basis for the new pavement. The Avenue is of such width that it will be practicable to raise the car tracks about two inches

and cover the Hassam pavement with sheet pavement. It is, therefore, recommended that bitulithic pavement be laid over the Hassam pavement, and the cost of this improvement is estimated at $1.50 per square yard.

Portland Street from Hampshire Street to Cambridge Street was paved with granite blocks in 1889 and 1900. This street should be re-paved in 1915, but it is believed that substantially all of the blocks will be suitable for relaying, so that the cost of this renewal is estimated at $2.00 per square yard.

First Street from Main Street to Cambridge Street was paved in 1895 and 1896 with granite blocks. It is in fair condition at the present time, but should be relaid in 1916 upon a granite base. It is believed that the blocks will be in suitable condition for relaying.

Bridge Street from Charles River to the Somerville Line was paved in 1871 and 1872 with granite blocks. It was repaved in 1890 and is now in poor condition. It should be repaved in 1916 with granite blocks laid upon a concrete base. The traffic through this street is extremely heavy, and it is therefore recommended that the heaviest type of granite block pavement be provided, the estimated cost being $3.75 per square yard.

Gore Street from Bridge Street to the Somerville Line was laid in 1893 and 1895, and is now in fair condition. The blocks should be relaid in 1917 upon a concrete base. It is believed that the blocks will be in suitable condition for relaying, so that few, if any, new blocks will be required.

Massachusetts Avenue from Harvard Bridge to the Boston & Albany Railroad is paved with brick laid in 1901, and is in fair condition. It requires some repairs, and will require repaving in 1917. It is expected that the concrete base will be in good condition, so that it will only be necessary to provide for laying the new bricks.

Broadway from Burleigh Street to Clay Street was paved with granite blocks in 1901, and is in fair condition at the present time. It will require repaving in 1920, when the blocks, which it is believed will be suitable for relaying, should be relaid upon a concrete base.

Brook Street from Massachusetts Avenue to Valentine Street was paved with brick in 1901 and 1902, and is in good condition. It will require repaving in 1920, when new bricks should be relaid upon the present concrete base.

Cambridge Street from Third Street to the Boston & Albany Railroad was paved with granite blocks in 1873. These were relaid in 1893, and some repaving was done in 1900. The street is now in fair condition, but will require repaving in 1920. It is believed that a substantial number of new blocks will be required, and therefore the cost of repaving has been estimated at $2.50 per square yard.

Massachusetts Avenue from Boston & Albany Railroad to Lafayette Square was paved with brick in 1904. It is now in good condition, although repairs are required from time to time. It will be necessary to renew this pavement in 1920 by laying new brick upon the old concrete base.

River Street from Green Street to Kinnard Street was paved with brick in 1902, and is now in good condition. It is expected that a new pavement will be required in 1920, when new bricks can be laid upon the old concrete base.

PROPORTION OF COST OF RENEWAL OF PAVEMENTS OVER SUBWAY TO BE BORNE BY THE BOSTON ELEVATED RAILWAY COMPANY

The streets which were torn up on account of the subway construction should be repaved in 1912, with the exception of Massachusetts Avenue between Pleasant Street and Quincy Street, which should be paved in 1913. We have recommended some changes in the character of construction of various portions of these streets, and it will probably therefore be necessary for the city to contribute something toward the reconstruction. The total cost of paving Main Street, Massachusetts Avenue between Lafayette Square and Quincy Square, and Brattle Street from Harvard Square to Brattle Square, is estimated at $185,600. If the city were to pay the entire cost of this work the expenditure in 1912 would be unreasonably high, but it is expected that the Boston Elevated Railway Company will pay for a large proportion of this work.

The repaving of Massachusetts Avenue between Quincy and Harvard Square, and of Harvard Square, should be done entirely at the expense of the Railway Company, because no changes whatever in the character of pavement are recommended.

A Commission consisting of Mr. L. M. Hastings, City Engineer; Mr. E. W. Quinn, Superintendent of Streets; Mr. H. B. Seaman, Consulting Engineer, representing the City of Cambridge, and Mr.

George A. Kimball, Chief Engineer, representing the Boston Elevated Railway Company, have given careful consideration as to when it will be advisable to repave the streets through which the subway has been constructed. They decided that it will not be advisable to do this work before 1912, on account of the danger of further settlement of the material over the subway.

RENEWAL OF BITULITHIC PAVEMENTS

In Table 10 is given a list of the streets which have been paved with bitulithic pavement, together with the date when each was paved, the present condition and the areas of the pavement, and the estimated cost of renewing the same with the pavement side of a concrete base of suitable thickness, and a wearing surface two inches in thickness of bitulithic concrete. We have made no attempt to specify the year in which each of these pavements should be relaid. The life of this pavement has been estimated at ten years, but it is realized that its durability depends very largely upon the promptness and thoroughness with which repairs are made. If the repairs should be neglected, it is conceivable that the pavement would not last ten years, and if they are made very promptly and thoroughly it is quite probable that in certain streets the pavement will last more than ten years. We therefore recommend that this pavement be very carefully and promptly repaired whenever defects develop, and that when the expense of such repairs becomes excessive, the pavement be renewed. The estimates of cost of renewal given are based upon the assumption that the old pavement will be entirely removed, and that the new pavement with concrete base will be laid. It is not improbable that in certain cases it will be advisable to remove the wearing surface and lay a new top coat of bitulithic concrete upon the old concrete base. This, however, cannot be determined at the present time, and is therefore simply a suggestion which should be given careful consideration at times when it becomes necessary to relay these pavements. If the renewals can be made in accordance with this suggestion, the expense will be reduced materially below the figures given in Table 10. Whatever method may be adopted it is of the utmost importance that these pavements be renewed as fast as they become unsatisfactory, or the expense of maintaining them in satisfactory condition becomes excessive. Considerable expense will be involved in this work, and should be added to the estimates of the cost of work included in our other recommendations. This sum should not exceed $210,000, and may be materially less.

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION.

Table 10.—Data Relating to Bitulithic Pavements Laid Prior to 1911, with Estimates of Cost of Renewals at $2.65 per square yard.

Street	Location		Date Laid	Present Condition	Area Sq. Yards	Cost
	From	To				
Temple St.	Mass. Ave.	Austin St.	1901	Good	760	$2,014
Plympton St.	Mass. Ave.	Bow St.	1904	Good	811	2,149
Linden St.	Mass. Ave.	Bow St.	1904	Good	680	1,802
Cambridge St.	Inman Sq.	Trowbridge St.	1905	Fair	8,620	22,843
Concord Ave.	Arsenal Sq.	Huron Ave.	1905	Good	4,921	13,041
Holyoke St.	Mass. Ave.	Mt. Auburn St.	1906	Good	862	2,284
Broadway	Quincy St.	Cambridge St.	1906	Good	1,602	4,245
Brookline St.	Putnam Ave.	Granite St.	1906	Good	2,296	6,084
Cambridge St.	Quincy St.	Peabody St.	1906	Good	6,650	17,623
Cambridge St.	N. S. Quincy St.	Trowbridge St.	1906	Fair	4,160	11,024
Garden St.	Mass. Ave.	Concord Ave.	1907	Good	10,122	26,823
Mt. Auburn St.	Brattle Sq.	Hawthorn St.	1908	Fair	4,695	12,442
Broadway	Quincy St.	Ellery St.	1908	Good	5,372	14,236
Broadway	Ellery St.	Ellsworth Ave. and Hancock St.	1909	Good	3,490	9,249
Mass. Ave.	Cambridge St.	Sacramento St.	1909	Good	8,470	22,446
Mt. Auburn St.	Hawthorn St.	Sparks St.	1909	Fair	4,200	11,130
Mass. Ave.	Sacramento St.	Waterhouse St.	1910	Good	10,550	27,958
						$207,393

GRANITE, BRICK AND HASSAM PAVEMENTS WHICH WILL NOT REQUIRE RELAYING UNTIL AFTER 1921

In Table 11 is given a list of the streets which have been paved with granite, brick and Hassam pavements, together with the date of pavement, the present condition and area of the pavements. These pavements are all in fair, or good condition, at the present time, and in our opinion none of them will require relaying until after 1921.

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION.

Table 11.—Data Relating to Granite, Brick and Hassam Pavements Laid Prior to 1911, Which Should Not Require Relaying Until After 1921.

Street	Location		Pavement			Notes	Area Sq. Yds.
	From	To	Kind	Date Laid	Present Condition		
Broadway	Sixth	B. & A. R. R.	Granite Block	1889	Good	Repaved 1909	2,850
Inman Sq.			Granite Block	1891	Fair	Repaired 1904	1,280
Harvard Sq.			Brick	1899		Partly relaid by B. El. Ry. Co.	6,010
				1900-01			
Bridge St	Craigie Br.	Prison Pt.	Granite Block	1902	Fair	Repaved with new blocks	2,660
Franklin St.	Brookline	Sidney	Granite Block	1902	Good		1,626
Sherman	Rindge Ave.	B. & M. R. R.	Granite Block	1902	Fair		2,925
Hampshire	Prospect	Inman Sq.	Granite Block	1904	Good		4,150
Somerville Ave	White St.	Somerville Line	Granite Block	1904	Good		
Somerville Ave	White St.	Mass. Ave.	Granite Block	1907	Good		578
Third St.	Charles St.	Binney St.	Granite Block	1904	Fair		3,600
Webster Ave.	Cambridge St.	City Line	Granite Block	1904	Fair		1,450
Cambridge	Prospect	Inman St.	Granite Block	1904	Good		2,300
Broadway	Clark	Windsor	Granite Block	1905	Fair		1,225
Brookline	Valentine	Putnam Ave.	Brick	1905	Good		2,950
Peabody St.			Brick	1905	Good		3,050
Putnam Ave.	Brookline	Magazine	Brick	1905	Good		2,530
Third St.	Binney	Broad Canal	Granite Block	1905	Fair		4,450
Warren St.	Cambridge	City Line	Granite Block	1905	Fair		1,491
Lambert St.	Cambridge	Gore	Granite Block	1905	Fair		825
Second	Munroe	Athenaeum	Granite Block	1906	Good		1,110
Portland	Main	Albany	Granite Block	1906	Good		1,370
Munroe	First	Second	Granite Block	1906	Fair	Relay 1915	1,544
Albany St.	Main	Pacific	Granite Block	1906	Good	Relay from Mass. Ave. to Pacific	9,755
Putnam Ave.	Magazine	River	Brick	1906	Good		3,600
Charles	First	Third	Granite Block	1906	Good	Relay	3,220
Sidney	Franklin	Erie	Granite Block	1907	Good		5,000
Hampshire	Prospect	Windsor	Granite Block	1907	Good		7,871
Osborn	Main	Albany	Granite Block	1907	Good		1,800
Otis	First	Second	Granite Block	1907	Good		1,500
Thorndike St.	First	Second	Granite Block	1907	Good		1,500
Water St.			Granite Block	1909	Good		1,510
Binney St.	Portland	B. & A. R. R.	Granite Block	1909	Good		1,850
Putnam Ave.	Mt. Auburn	Western Ave.	Brick	1910	Good		6,222
Albany St.	Pacific	Erie	Granite Block	1910	Good		3,800
Ames St.	Amherst	Main	Granite Block	1910	Good		4,030
Charles	Third	Sixth	Granite Block	1910	Good		4,411
Erie St.	Albany	E'ly	Granite Block	1910	Good		356

ORDER IN WHICH STREETS SHOULD BE PAVED

We have recommended for early improvement those streets and portions of streets now unpaved which appear to us to be the most important for producing, in connection with the streets now paved, a comprehensive system of paved streets. An effort has been made to designate the order in which these streets should be paved, so that the pavements may be made continuous throughout the city, at as early a date as possible. Where the expense of paving a given street has been found to be too great for a single year, the completion of the work has been postponed to a succeeding year. Enough alternate routes have been provided to prevent congestion of traffic upon a single good pavement. The successful development of the scheme herein recommended will depend upon constructing the streets in the order, and in the manner recommended, and it is important that the plan be not altered except in cases where future development may bring about changed conditions, and thus make the improvements recommended impracticable.

CONTINUOUS ADMINISTRATION NECESSARY FOR SUCCESS

It is of the utmost importance that this work be carried out from beginning to end with a single definite policy, and that the most approved methods be followed and the best quality of workmanship and materials be secured throughout. This cannot be secured by constantly changing administration, and for this reason the tenure of office of the officials in direct charge of this work should be made reasonably secure for a term of several years, and they should be free from political influences and interference.

We believe that the estimates of cost are ample to provide for carrying the work out in a reasonably efficient manner. Certain portions must be done by contract, other portions may be done by contract or by day labor, as may prove most economical. To determine the comparative cost of doing the work by day labor, or by contract, we recommend that bids be received for each piece of work undertaken, and that at the same time the Street Department present an estimate of the cost of doing the work by day labor. Such estimates should be prepared in advance, sealed and deposited in the proper place, and publicly opened and read in the same manner as the bids of contractors. In those cases where the department estimates are lower than the bids received, the work should be done by day labor, and

whenever the tenders are lower than the estimates of the city, the work should generally be done by contract and efficiently inspected.

It is important that the cost of the work be accurately known, and be made a matter of record. It is desirable that the annual report of the street department should contain the bids and estimates made and the cost of the work, whether done by contract or by day labor. The prices should be given in units, such as cost per square yard, as well as in the aggregate.

The cost of regulating, repairing sidewalks and similar work not properly a part of the expense of the pavement itself, should be itemized separately, so as not to complicate the records of unit cost of pavements. All materials of value removed from a street to be paved should be credited to the work of paving the street from which they are taken, but such item should be kept separate and not included in the unit cost of the pavement, but should be reported with the cost of the work.

COST OF WORK RECOMMENDED

The expenditures which will be required to carry into effect the recommendations herein contained for new construction, and for the renewal of old pavements, are given by years in Table 12.

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION

Table 12.—Estimates of Annual Expenditures Required for Work Recommended

Year	New Construction	Old Granite, Brick and Hassam Pavements Renewed	Total
1912	$65,200	$141,900	$207,100
1913	94,300	49,400	143,700
1914	122,700	25,100	147,800
1915	106,600	50,300	156,900
1916	88,900	77,000	165,900
1917	117,500	39,700	157,200
1918	99,700		99,700
1919	92,200		92,200
1920	103,600	69,900	173,500
1921	100,400		100,400
Total	$991,100	$453,300	$1,444,400
Renewal of bitulithic pavement, a total of not more than		210,000	210,000
GRAND TOTAL		$663,300	$1,654,400

The total expense of the construction of new pavements and the renewal of old pavements, is estimated at nearly $1,500,000 not including the renewal of existing bitulithic pavements,—the expense of such renewals should not exceed $210,000, and may be somewhat less. The total expense of the work recommended will therefore be nearly $1,650,000, which we believe to be the amount which it is necessary for the city to expend during the next ten years, to provide satisfactory durable pavements. The improved conditions due to this work will be evident from year to year, as the work progresses. Unfortunately it is not possible to do all of the work recommended in a single year, which, if financially practicable, would be very desirable.

PART II

REFUSE AND WASTE DISPOSAL

Our attention has been called by the city officials to the increasing difficulties of finding suitable dumping places for the refuse collected by the City Departments, and the increasing cost of such collection. We have, therefore, given much consideration to this subject, feeling that it is one of the most important problems with which the department is confronted at the present time.

CLASSIFICATION OF REFUSE.

The refuse and waste collected and disposed of by the city may be classified as follows:

(a) Garbage.
(b) Papers and other combustible material.
(c) Ashes and other incombustible material.
(d) Street scrapings and sweepings.
(e) Material excavated from street catch basins.

PRESENT METHODS OF DISPOSAL

(a) The disposal of garbage in Cambridge is now in the care of the Overseers of the Poor Department. It is collected by City carts, transported to the City Home, where most of it is sold to outside farmers, by whom it is carried away. This method of disposal has many objectionable features, and at some not distant day will have to be supplanted by a more modern and sanitary method

of disposal. However, as the present method is in many respects fairly satisfactory, and as any radical change would involve a very large expenditure of money, and a loss of upwards of $10,000 in revenue, it is not considered best to make at this time any recommendations looking toward such a change.

(b) At present this class of material is more or less mixed by the householders with class "c," no strict separation being insisted upon. Part of the material is burned at the Incinerator on Main Street, and the rest is burned as well as possible in the open air at the various dumps.

Much well-founded objection is made to this method of disposal by residents near the dumps. Moreover, the dumps are not convenient and are being rapidly filled up. It is clear that this method of disposal must and should be soon abandoned and a different one adopted.

The most feasible plan seems to be to construct at the city yard on Raymond Street another incinerator. A strict separation should then be insisted upon and all of this class of refuse which cannot be sold should then be carried to the two incinerator stations and burned.

(c) Much the larger proportion of the refuse collected in Cambridge consists of ashes or other incombustible materials constituting class c. Data relating to the collection of such materials is shown in Table 13.

CITY OF CAMBRIDGE—HIGHWAY IMPROVEMENT COMMISSION

Table 13.—Data Relating to Collection of Class C Refuse

Year	Carried to dump, cu. yds.	Carried to Incinerator, cu. yards	Total Cubic Yards	Total Cost of collection per year	Cost per Cubic Yard
1900	70,656			$27,999.94	$0 396
1901	85,756			28,829.92	0 336
1902	89,549			28,999.94	0 323
1903	87,636			28,797.78	0.328
1904	103,426			32,096 98	0.310
1905	100,084			32,499.23	0.324
1906	106,106			33,686.46	0.316
1907	113,604			37,458.48	0.329
1908	99,486	23,415	122,901	40,152.36	0.319
1909	109,799	22,347	132,146	44,599.62	0.337
1910	120,667	20,956	141,623	47,099.23	0 335

The refuse of this class not carried to the incinerator is mainly carried to dumps situated as follows:

Near Brookline Bridge.
Near the foct of Pleasant Street.
Near Bird's Pond.
In an old clay pit near Concord Avenue.
In a clay pit near the City yard on Raymond Street.

All these dumps, except the last, are nearly filled and are the subject of complaint from persons owning property near them, and therefore they cannot be used for this purpose much longer. Furthermore, in many cases the haul to them from the points where the refuse is gathered is so long as to make the cost excessive.

(d) In addition to the daily cleaning of the paved streets, twice a year at least, all the public streets of the city are scraped and the material so gathered has to be removed and disposed of. This in the past has been accomplished largely by filling low lands, and raising the grade of yards and lots at the request of the owners. It is being found increasingly difficult to find places of disposal for this heavy material without making very long hauls at correspondingly increased cost.

(e) The material taken by the Sewer Department from the street catch basin is generally regarded as more obnoxious than the refuse already referred to, and it is correspondingly difficult to find any place in Cambridge where it may be dumped.

POSSIBILITY OF UTILIZING CLAY PITS AS DUMPING GROUNDS

It is clear that steps must be taken to secure some better method of disposal for the three classes of refuse last referred to at an early date, and to this the Commission has given its attention.

In the extreme western parts of the city are located a number of disused clay pits which would require something over two million (2,000,000) cubic yards of filling to bring them to the original grade. These clay pits are controlled by one corporation, the New England Brick Company, and it seems that some equitable arrangement might be made with the company by which the city could fill these pits without charge from either party.

If this can be done the problem becomes one of economical handling and transportation.

QUANTITY OF REFUSE TO BE HANDLED

As already shown on page 70 the total quantity of class "c" refuse collected in 1910 was 141,623 cubic yards. Of this quantity 20,956 cubic yards were taken to the incinerator, where similar materials will continue to be carried. Of the 120,667 cubic yards of other refuse collected, about 37,262 cubic yards were collected by the city ash carts in districts within convenient hauling distance of the pits. If the new method of disposal to be proposed had been in use in 1910, this quantity of refuse would have required no special method of transportation. There would have remained about 83,400 cubic yards to be transported to the pits, or otherwise disposed of. It is estimated that of this quantity 25 per cent. was paper, which in the future should be carried direct to the two proposed incinerators, leaving 62,554 cubic yards as the amount of refuse class "c" collected in 1910 to be disposed of in some other manner,—as, for example, dumped into the clay pits.

The average weight of this class of material was found to be 1150 pounds per cubic yard, so that the total weight for the year 1910 would be about 36,000 tons.

The amount of street scrapings taken up yearly is estimated at 17,200 cubic yards, or about 18,323 tons. Of this 4583 tons can be carried to the pits direct from the areas adjacent, leaving 13,740 tons to be transported by some new method.

The amount of material removed annually from catch basins is estimated as about 3129 cubic yards, or about 5000 tons. Of this about 1250 tons can be carried direct to the pits, and the balance, about 3750 tons, must be transported by special conveyance.

The estimated present amount of refuse to be transported by special methods would be as follows:

Class (c)	62,554	cubic yards,	or	36,000	tons
Class (d)	12,733	"	"	13,740	"
Class (c)	2,344	"	"	3,750	"
Totals	77,631	cubic yards,	or	53,490	tons

The daily quantity to be transported varies greatly. The largest amount of class "c" was collected in December, 1910, 172 tons. The smallest amount was collected in August, 1910, 90 tons. Collection of class "d" occurs mostly in April and October, the maximum amount to be transported being about 228 tons daily. The collection of class "e" is fairly uniform, about 24 tons daily. Thus the maximum requirement might be, for April or October, as follows:

Class (c) average amount	$\frac{72 + 90}{2}$	131 tons
Class (d) " "		228 "
Class (e) " "		24 "
Total		383 tons

The minimum during August would be as follows:

Class (c)	90 tons
Class (e)	24 "
Total	114 tons

RECOMMENDATIONS

First.—It is recommended that a strict separation be made by citizens of class "b" from class "c" refuse.

That a new incinerator of simple yet suitable design be constructed at the Raymond Street yard, and that all of class "b" refuse be taken in suitable carts to the two incinerators and the material there disposed of either by sorting, pressing, baling and selling, or destroyed by burning as shall be found most economical and practical.

Second.—It is recommended that steps be taken to secure the right to use the clay pits above referred to as dumps for classes "c," "d" and "e" refuse.

Third.—That the refuse collected in the western part of the city be taken to the proposed dumps by carts in which it is collected.

Fourth.—That the collection of refuse class "c" from the rest of the city be made by flat platform wagons carrying steel refuse tanks or boxes, which may be easily transferred to other means of conveyance to the dumps.

The collection of class "d" refuse could be done partly by the same method. The balance could be collected by carts, etc., and transferred by temporary means to the transportation vehicles. Class "e" refuse would be collected in tight covered tanks or small wagon bodies and transferred in the same manner.

Fifth.—That five and possibly six central stations or yards be established in the central and eastern parts of the city to which the wagons will bring refuse in cans.

These stations to be located as follows:

1. Incinerator yard on Main Street near Ames Street.
2. Portland Street, rear of Hook & Ladder house.

3. City lot on Norfolk street, or city lot on Harvard Street, near corner Prospect Street.
4. City lot on River Street corner of Blackstone Street.
5. Some lot to be selected near Harvard Square.
6. Lot on or near Baldwin Street.

Sixth.—Install at each station suitable appliances for transferring by power the tanks or boxes from the collecting wagons to the transportation vehicles and reverse.

Seventh.—The question of the best method of transportation of the material from the stations to the dumping pits, the Commission has been unable to decide. Two methods have been suggested and considered,—the first, the Boston Elevated Railway Company is to lay side tracks into the yards of the several stations and connect them with the tracks of the Company in the street. A track is also to be carried from the Concord Avenue track at Huron Avenue to the pit near Sherman Street, a distance of about one-half mile, where a power derrick would be set up for taking the tanks from the cars and swinging and dumping them into the pit. All this to be paid for and owned by the city. The Railway Company to furnish cars, wiring and operators, at rate per hour or per diem to be agreed upon.

The right to transport material of any kind through the city streets by the Railway Company is dependent upon the permission to do so being granted by the City Council, and this has recently been refused, so that unless special permission to transport the material is granted, this plan would be impracticable. It might be found advantageous to the city to grant permission to transport its own refuse.

By the *second* plan considered, the transportation of the refuse collected is to be done by means of gasolene motor trucks, using the same stations, equipped with suitable transferring devices, the trucks to be owned by the city and operated by men in the employ of the city.

An approximate estimate of the outlay required shows that whichever plan is adopted an expenditure of from $80,000 to $100,000 will be required for the necessary equipment, land for stations, collecting wagons, cranes and other equipment.

It shows also that the cost of transporting the material from the central stations to the dump will probably be from thirty to fifty cents per ton; not including the cost of collecting and delivering it to the central stations, which will be reduced from the present cost of collecting, owing to the more convenient location of the stations to which the deliveries will be made.

It is apparent from the above figures that either of these methods of transportation will render the disposal of refuse more expensive than it is at present. As long as the present dumps hold out, or their use is permitted, it will be more economical to continue to carry the refuse to them. It would seem wise, however, to take preliminary steps toward the adoption of a more complete and lasting method of disposal, by securing first, the dumps themselves, and second, the two lots which will be needed for central stations. We would recommend that immediate action be taken on these two suggestions.

Respectfully presented,

GEO. M. CLUKAS,
EDWARD W. QUINN,
LEWIS M. HASTINGS,
HARRISON P. EDDY.

June 26, 1911.

APPENDIX I

Copy

(CITY SEAL)

In Board of Aldermen,
April 20th, 1910.

Ordered:

That His Honor the Mayor be authorized and requested to appoint a commission to consider and report to the Mayor and City Council of Cambridge, on or before July 1, 1910, a comprehensive plan for the development and improvement of the streets of the City of Cambridge, together with any suggestions and recommendations which it may be for the city's interests to obtain.

This commission to consist of the City Engineer, the Superintendent of Streets and a third person to serve without compensation with such expert engineers as the Cambridge Taxpayers Association may suggest. The compensation of the said expert engineers to be met by the Cambridge Taxpayers Association.

Concurred, April 20th, 1910.

Approved, April 22nd, 1910.

A true copy.

Attest: EDWARD J. BRANDON, City Clerk.

APPENDIX II

PRELIMINARY REPORT OF THE COMMISSION UPON THE DEVELOPMENT AND IMPROVEMENT OF THE STREETS OF THE CITY OF CAMBRIDGE

To the Honorable the Mayor and City Council of Cambridge.

Gentlemen:

Pursuant to the order authorizing the appointment of this Commission, we beg to submit the following preliminary report, with certain recommendations which seem pertinent at the present time.

While the instructions to this Commission require a comprehensive plan for the development and improvement of the streets of the City of Cambridge, we appreciate that it is necessary for the City Council to early determine upon a policy for such improvements as may be carried out during the current year. The preparation of a comprehensive plan will require considerable time and study, which it has not as yet been possible to devote to this subject. For these reasons it has been deemed wise to consider what work can be done during the current year without conflicting with the more comprehensive plan to be devised, and to recommend to the City Council such improvements so that the work may be begun at an early date and carried to completion during the season of favorable weather conditions.

We believe that if the work herein recommended shall be favorably considered by the City Council and duly authorized it will not in any way conflict with the ultimate comprehensive plan to be later presented to your Board.

Prospect Street.—This street was paved several years ago with brick on a concrete foundation, and is now badly worn at many points. That portion lying between Central Square and the northerly line of Austin Street has been torn up on the westerly side in connection with the building of the subway, and has been temporarily repaved with granite blocks. In view of the fact that this portion of the street must soon be put into proper condition by the railway company, we have given careful study to determine the character of pavement which ought, under all conditions, to be laid upon this portion of the street. We are of the opinion that wood block pavement, laid on a suitable concrete base, will best meet all conditions, and therefore recommend that the present pavement be replaced by wooden block pavement on a concrete foundation. We understand

that the street railway company will pay for the changes between the rails of the two tracks, and a proper proportion of the cost of repaving the westerly side of the street which it has torn up. The estimated expense to the city is $1800.

Albany and Erie Streets.—Albany Street, from the southerly terminus of the present granite block paving, to Erie Street, and that portion of Erie Street lying between Albany Street and Waverly Street, are subject to heavy traffic and will, with the development of property in this vicinity, be subject to still more severe traffic conditions.

These streets are built upon filled ground, and there is a probability that still further settlement will take place, so that it will be unwise to build a concrete base at the present time. In view of all the conditions, we recommend a heavy granite block pavement, laid upon a 6-inch cracked stone base, same to be thoroughly rolled, and composed of "run of crusher" stone. The granite blocks should be 7 inches deep, averaging 23 per square yard, and should be thoroughly grouted with Portland cement grout. We estimate the cost of this pavement at $13,000.

Charles Street.—Between Third and Sixth Streets the macadam paving is in poor condition. This street is in a district where the teaming is moderately heavy and where, we believe, grouted granite block pavement on a concrete base is the most practical material for paving. We therefore recommend that this street be paved with granite blocks 4 inches in thickness and averaging about 30 per square yard, laid upon a Portland cement concrete base, the pavement to be thoroughly grouted with Portland cement grout. The estimated expense of this work is $14,000.

Putnam Avenue, between River Street and Massachusetts Avenue, is in poor condition, and as it offers the most favorable route for traffic from the southeastern portion of the city to the central portion, it should be put into good condition at the earliest opportunity. The easterly portion of this street, lying between Brookline and River Streets, is paved with brick. The traffic through this street, while being voluminous, will not be of the heaviest character, and it appears that a good brick pavement, laid on a concrete base, will answer all the requirements for many years to come. In view of the importance of this street as a thoroughfare and the character of the traffic which it will accommodate, we recommend that the portion lying between River Street and Massachusetts Avenue be

paved with a good quality of vitrified brick, laid on a Portland cement concrete base, and that the brick be thoroughly grouted with Portland cement grout. The estimated expense of this work is $25,000.

Mt. Auburn Street.—Mt. Auburn Street is a very important thoroughfare for traffic passing from the center of Cambridge to the Mt. Auburn and Cambridge Cemeteries and the towns lying west of the city. In 1908 a beginning was made toward the improvement of this street, and bitulithic pavement has been laid from Elliot Square to Sparks Street. While this kind of pavement is not as permanent as either brick or granite, we appreciate the necessity of putting this street into better condition as quickly as possible, and also the fact that the city cannot expend an unlimited amount of money upon street construction. The first cost of this pavement is considerably less than that of either brick or granite block, and therefore for a given sum of money it is possible to pave a longer portion of the street with pavement of this character.

The traffic upon Mt. Auburn Street is not heavy, although it is voluminous. The presence of the street railway tracks is instrumental in causing the traffic to be confined to a narrow roadway on either side of the tracks, which puts upon the pavement a more severe test than would be the case were the street free from tracks. It is important that the pavement should be more permanent than ordinary macadam.

In view of all the conditions we recommend that the portion of Mt. Auburn Street lying between Sparks Street and Coolidge Avenue be paved with bitulithic pavement, under a five, or preferably ten, year guaranty, provided the price at which said pavement can be obtained is reasonable. The estimated cost of this work is $25,000.

Massachusetts Avenue.—Massachusetts Avenue, between Harvard Square and the Arlington line, is an important thoroughfare leading from the center of the city to towns lying on the north and west. It has been improved with various kinds of pavement from Sacramento Street to the city line. In view of the fact that so large a portion of this street has already been improved, and of its importance as a thoroughfare leading to and from the centre of the City, we recommend that its improvement be continued from Sacramento Street to Waterhouse Street. The portion of the Avenue immediately northwest of Sacramento Street is paved with bitulithic pavement, and we recommend that this kind of pavement, under a guaranty similar to that recommended for Mt. Auburn Street, be used upon the portion

of the street under consideration, provided the price at which this pavement can be obtained is reasonable. The estimated expense of this work is $24,000.

In this connection it may be of interest to state that the reason for not recommending the continuation of this pavement to Garden Street is that there are likely to be serious disturbances of the street surface, between Garden and Waterhouse Streets, due to subway construction, and construction necessary to the connection of surface lines with the subway.

RECAPITULATION

The following table contains the essential data relating to the recommendations herein contained:

Name of Street	Location of Improvement	Length	No. of sq. yds.	Estimated Expense
Charles	Third St. to Sixth St.	1,170	4,369	$14,000
Prospect	Central Sq. to Austin St.	330	854	1,800
Albany and Erie	Pacific St. to Waverly St.	1,150	4,200	13,000
Putnam Ave.	River St. to Mt. Auburn St.	2,840	9,075	25,000
Mt. Auburn	Sparks St. to Coolidge Ave.	2,500	11,000	25,000
Mass. Ave.	Sacramento St. to Waterhouse St.	1,700	10,580	24,000
			Total	$102,800

RECEIVING BIDS

It has been found economical, in several cities, to do work of this character by contract, and we therefore recommend that bids be taken for this work and if found economical a portion, at least, be done by contract, provided, however, that the contracts should specify that preference should be given to Cambridge labor.

LOAN

In making these recommendations we realize that it will be impossible to meet the expenses involved from the current tax levy, and we believe that the City is justified in negotiating loans for the purpose of financing the improvement of the streets where said improvements are of a permanent nature.

The wooden block, brick, and granite block pavements, which we have recommended, we believe will continue in good condition for a period of 20 years and will not, during that time, require extensive

repairs due to natural wear. In view of this fact we think that the City would be justified in issuing bonds for a period of twenty years, to meet the expense of this work.

The bitulithic pavement which we have recommended will not probably continue in good condition for more than ten years, and it is probable that there will be expense due to somewhat extensive repairs after a period of five years, provided the guaranty is for that length of time. In view of these probabilities, we do not think the City is justified in issuing bonds for a period of more than ten years to meet the expenses of pavements of this character.

Respectfully submitted,

GEO. M. CLUKAS,
EDWARD W. QUINN,
LEWIS M. HASTINGS,
HARRISON P. EDDY.

Cambridge, Mass.
May 21, 1910.

APPENDIX III

Acts of 1910

(Chap. 482)

An Act to Authorize the City of Cambridge to Incur Indebtedness For the Construction of Highways.

Be it enacted, etc., as follows:

Section 1. The City of Cambridge shall issue no bonds, notes or scrip for the construction of macadamized streets or streets of a less permanent construction than macadam.

Section 2. The City of Cambridge may incur indebtedness for the construction of accepted highways and other ways, but only upon the authorization of the city engineer that such work is for construction of a permanent character; and the city may issue bonds, notes or scrip therefor, payable within ten years, except that the construction of an accepted street with a pavement of granite blocks or cobblestones may be paid for by an issue of bonds, notes or scrip payable in twenty years.

Section 3. The certification of the city engineer shall be conclusive in determining the nature of the work and the validity of the bonds, notes or scrip issued therefor.

Section 4. It shall be unlawful for the City of Cambridge to borrow money to pay for the construction or reconstruction of highways or other ways, or for the construction or reconstruction of parts thereof, in cases in which any previous issue of bonds, notes or scrip for that purpose has not matured.

Section 5. Chapter two hundred and twelve of the acts of the year eighteen hundred and ninety four is hereby repealed.

Section 6. This act shall take effect upon its passage.

(Approved May 5, 1910.)

APPENDIX IV

Letters Relating to Wood Block Pavement from Retail Merchants having Stores on Market Street, Philadelphia; also

Extracts from papers by Engineers relating to Wood Block Pavements.

Letters containing equally favorable comments were received from other merchants, but at their request are not made public.

Copy.

STRAWBRIDGE & CLOTHIER,
Market, Eighth and Filbert Streets,
Philadelphia, November 5, 1910.

Mr. L. M. Hastings,
Office of the City Engineer,
City Hall, Cambridge, Mass.

Dear Sir:—

Replying to your letter of the 4th instant, we beg to say that while it is true that there are days when the wood pavement on Market Street is very slippery, such days are very few in number, and the slight inconvenience suffered by teamsters on those days is inconsiderable when considered in connection with the great advantages derived at all times from the use of the truly magnificent thoroughfare which Market Street now is. There were a few days last winter when the wooden blocks were *quite* slippery, but it is probably quite true, as was reported at that time, that on those days all asphalt paved streets were equally slippery.

Very truly yours,
(Signed) STRAWBRIDGE & CLOTHIER.

Copy.

JOHN WANAMAKER,
City Hall Square,
Philadelphia, November 7, 1910.

Mr. L. M. Hastings,
Office of the City Engineer,
City Hall, Cambridge,
Massachusetts.

Dear Sir:—

In reply to your letter of November fourth, with reference to wood pavement, would say we have some objection to the wood pavement but not enough to condemn it. At certain periods of the Winter months, when the snow is not deep, or when we have light misty rains, it is rather slippery but not lasting long. It is noiseless and easily kept clean and on the whole gives fairly good satisfaction. Horses become more accustomed to it each day.

Trusting this will be satisfactory,

Yours very truly,
(Signed) JOHN WANAMAKER.

(Copy.)

GIMBEL BROTHERS,
Philadelphia, November 16, 1910.

Mr. L. M. Hastings,
City Engineer,
Cambridge "A," Mass.

Dear Sir:—

Yours of the 15th inst., concerning the wood pavement on Market Street, this City, has just been received. Your former letter, under date of November 4th, never reached this office, otherwise it would have been promptly answered.

Our experience, together with that of our drivers, has convinced us that the wood block, as laid on our street, is very satisfactory, and has many advantages over the asphalt or stone. The slipping in icy weather is not nearly as bad as on the asphalt, and the drivers tell us they like the street better than any other.

The fact that the City authorities are going to lay this wood block on other streets in the down town district is another evidence that the paving is desirable.

If we can be of any further service to you, kindly advise us.

Very truly yours,
(Signed) GIMBEL BROTHERS.

From annual report for 1910 of Charles M. Slocum, City Engineer, Springfield, Mass.

"Creo-resinate wood blocks."

"The general satisfaction during recent years, obtained by the use of wood blocks for paving, has been regarded a sufficient reason for its further use, and three streets have been paved in part with this material: North Main Street, Morgan to Calhoun street; State Street, Pleasant to Terrence Street; Bridge Street, easterly from Dwight Street; a total surface of 10,688 square yards and a length of 2,226 lineal feet."

From paper by B. H. Durham, Street Engineer, Minneapolis.

"Nine years' experience with creosoted wood block pavement in Minneapolis."

"Generally speaking, creosoted wood block pavement is very popular in Minneapolis at the present time. On at least three-fourths of the streets to be paved, the property owners want it. We have had very little, if any, trouble with the swelling and consequent bulging of the blocks, which seems to be a common complaint in many cities. Also another thing that I have often had given to me as an objection to the modern wood paving, that is slipperiness, has given but little trouble here. In fact the slipperiness is no more than in the case of asphalt or brick, and we have laid the blocks on a 6 to 7 1-2 per cent. grade.

Our experience here has led to the following general conclusions in regard to wood pavement:—

1st. That it is of no use to treat inferior woods or an inferior quality of wood. A rotten, sappy or shaky block can't be helped by infusion of oil.

2d. That the blocks must be laid at an angle of about 22 degrees, 30 minutes, from a right angle to the street.

3d. That the blocks must not be paved too closely together. By that, is not meant that they should be very loosely placed, but that they should not be driven tightly together.

4th. That the street must be kept well sprinkled in any weather, when sprinkling is possible or necessary.

5th. That while treated woods used for paving purposes undoubtedly will wear out, there is only one material that we have found to outwear them, and that is granite blocks.

As a last concluding statement, the writer is willing to go on

record as saying that creosoted wood blocks have proven thus far a success in the city of Minneapolis."

From paper by James N. Hazelhurst, Consulting Engineer.

"Wood block pavement in Atlanta."

"Since the commencement of the modern wood block pavement in this city no other type has been used so far as known, with the exception of certain streets which are paved by the County Commissioners with a bituminous pavement and a few streets which have been chartered or laid with a tar macadam in outlying districts. In general both the city officials and the taxpayers are entirely satisfied with the materials furnished and work performed, and at this time wood block is the most popular of the street surfacing materials in this city."

REPORT OF BOARD OF CEMETERY COMMISSIONERS.

Cambridge, April 1st, 1911.

To the Honorable, the City Council of the City of Cambridge:

The Board of Commissioners of Cambridge Cemetery respectfully submits its fifty-seventh (57th) Annual Report, the same being for a twelve months' period ending March 31st, 1911.

The amounts appropriated for the use of the department during the past season were as follows:

General Expenses	$2,000 00
Salaries	15,000 00
Grading (Special)	1,000 00

During the year the sum of Two Hundred Dollars ($200.00) was transferred from General Expense Account to Salary Account, making sums available for the season's work of One Thousand Eight Hundred Dollars (1,800.00) for General Expenses and Fifteen Thousand Two Hundred Dollars ($15,200.00) for Salaries. These amounts were practically expended in $1,820.80 for General Expenses and $15,182.83 for Salaries.

For detail account of expenditures, reference is made to the City Auditor's Report.

The receipts of the department have been unusually heavy, the amount for sales being the largest sum realized in any season since the opening of the Cemetery. This result has been obtained without more than the ordinary number of interments, this indicating a desire on the part of the citizens of Cambridge to secure a burial place in our Cemetery before the time of actual need.

Now that attention has been called to the rapidly decreasing opportunity to secure a suitable lot in Cambridge Cemetery, it is anticipated that the demand for burial lots will continue unabated for a few years more, when, of course, it will be impossible to meet any such desire.

The territory at the disposal of the Board is limited in area and unless provision shall be made before many years the last lot will be sold.

By the appropriation of One Thousand Dollars by the City Council, during the past season, much progress has been made in grading and preparing for interment purposes a tract of land of considerable area in the River and Greenwood Avenues section of the Cemetery, but this work barely allows a reasonable choice to prospective lot owners.

It is expected that the next City Council will provide an additional appropriation to continue the work of grading already begun, so that the territory now remaining may be properly graded and made available for use.

It is estimated that about Three Thousand Dollars ($3,000.00) will be needed to complete the work already begun and if this sum could be placed at the disposal of the Board the results would be attained more economically and quickly than by the piece-meal method made necessary by inadequate financial appropriations.

NEW CHAPEL.

Referring to the desirability of a Chapel at the Cemetery the Commissioners stated in their last report certain facts which may well bear repetition, when they said:

"Conditions of living in our city have changed materially during the past generaton. From a city of a distinctly suburban character, with single dwellings and plenty of open places, Cambridge has taken on the aspect of a large city, with numerous and spacious apartment houses and private hotels, and each year witnesses a steady increase in their number.

The changing character of our dwellings, which make it inconvenient, oftentimes impossible, to conduct religious service amid appropriate surroundings—the crowding of tenements where formerly single dwellings existed—all tend to show the desirability of a new Chapel.

The expediency of such a building is enhanced by the presence of a large part of our population which is not identified with any particular church, but which, in the event of death, desires the comfort of religious obsequies.

For an adequate Chapel building, with suitable and appropriate

fittings, the estimated cost of Seven Thousand Dollars ($7,000,00) does not appear to be exorbitant. This estimate has been given after careful consideration and it seems quite probable that the annual revenue would easily cover all maintenances and sinking fund charges. This means, then, that the erection of the building will entail no additional burden on the City, and the construction is again recommended."

Doubtless, a Chapel building, seemly and appropriate in its appurtenances, would be a great accommodation. Already many inquiries are being made in relation to the probability of a Chapel at the Cemetery, and from this fact this Board is confident that it would be called into use immediately on its completion even more than has been anticipated.

The receipts of the department have been as follows:

Sales	$10,841 70
Burials	3,283 00
Foundations, Brick Graves, etc.	1,522 41
Care of Lots	2,391 72
Sundries	666 31
Interest on Cemetery Fund	3,069 70
Total	$21,774 84

CARE OF LOTS.

It is gratifying to this Board to note the increasing desire on the part of lot owners to place lots and graves in perpetual care.

No better method has been devised towards securing for a lot that regular attention and intelligent service which is absolutely necessary if its good appearance is to be maintained.

The rate established by this Board is as low as can reasonably be expected. There is no desire to obtain from lot owners a larger sum than is needed to repay the city for the expenditure which it makes in giving proper care. It must be comforting and a source of keen satisfaction to a proprietor in our Cemetery to know that for all time his burial place will never be neglected.

The orders for annual care may be overlooked for one reason or another but no such result can be anticipated if the provision shall be made for placing the lot under the perpetual care system in vogue in Cambridge Cemetery.

The attention of holders of lots is urged again to this method.

During the past season twenty-seven lots were placed in per-

petual care, making an aggregate of six-hundred and sixty-eight lots.

For this care the sum of $2,723.25 has been received since the last report and the fund now amounts to $83,666.90.

OLD BURIAL GROUND.

The ancient town burial ground, located at the corner of Garden Street and Massachusetts Avenue, has been thronged with visitors during the past summer. Year after year, this resting place of the early settlers seems to hold an unusual interest to the tourist within our city.

It is no uncommon sight, during the vacation period, to behold groups of people examining the inscriptions on the grave stones and noting the names of men and women who have been prominent in the story of our city and country.

Cambridge is a community with a story worth the telling and, with this in mind, much care has been given to preserve the memorials of the past in this burial place for the edification of the present and future.

In a short time a substantial sum must be expended on this ground and it would be the part of wisdom to appropriate a considerable sum next season for maintenance.

The Board wishes to record its appreciation of the services of Mr. William A. Bertsch and Mr. Gustave Wilson, whose terms expired during the year.

On his retirement Mr. Bertsch completed a five years' term, making an aggregate of seventeen years' service in this Board, having served from 1890 to 1902 and again from 1905 to 1910. Mr. Wilson had also an experience of six years from 1904 to 1910.

Both of these gentlemen had given close attention to the affairs of the department.

The Superintendent reports the following statistics:

Interments (April 1, 1910, to March 31, 1911, inclusive)	629
Interments (Overseers of the Poor)	30
Interments, total to date	29,709
Graves sold	150
Lots sold	66
Lots ready for sale	193
Graves ready for sale	38

Foundations built	140
Brick and slate graves laid	26
Lots in annual care	1,077

ROSWELL WETHERBEE, Chairman.
DAVID A. BARBER,
DAVID FUDGE
GEORGE T. QUINN,
JOHN S. SHERIDAN,
JEREMIAH J. SULLIVAN.

Board of Cemetery Commissioners.

APPENDIX

ORDINANCES

PASSED BETWEEN APRIL 1, 1910, AND APRIL 1, 1911, AND AMENDMENTS TO STANDING REGULATIONS OF BOARD OF ALDERMEN

An Ordinance in Amendment of an Ordinance in Relation to Junk, Old Metals, Second-hand Articles and Rags.

Be it ordained by the City Council of the City of Cambridge as follows:

Section 2 of Chapter 42 of the Revised Ordinances as amended to November 8, 1892, is hereby further amended by striking out the last two sentences in said section and inserting in place thereof the following:

"The fee for keepers of shops for the purchase, storage, sale, barter or exchange of junk, old metals, secondhand articles and rags, except for keepers of shops for the purchase, storage, sale, barter or exchange of household furniture, and the fee for such solicitors, collectors of and dealers in the aforesaid articles shall be Ten Dollars ($10.00) for each license. The fee for keepers of shops, for the purchase, storage, sale, barter or exchange of household furniture shall be Five Dollars ($5.00) for each license. No such license shall be transferable."

As amended the section will read as follows:

Section 2. Each license issued to such dealers in junk, old metals and secondhand articles, and collector and dealer in rags, shall set forth the name of the party licensed, the nature of the business, and the building, place or vehicle in which it is to be carried on, and shall continue in force until the first day of May, next ensuing, unless sooner revoked. The place of business shall not be changed during the continuance of the license except by special consent of the Board of Aldermen. The fee for the keepers of shops for the purchase, storage, sale, barter or exchange of junk, old metals, second-hand articles and rags, except for keepers of shops for the purchase, storage, sale, barter or exchange of household furniture, and the fee for such solicitors, collectors of and dealers in the aforesaid articles shall be Ten Dollars ($10.00) for each

license. The fee for keepers of shops, for the purchase, storage, sale, barter or exchange of household furniture shall be Five Dollars ($5.00) for each license. No such license shall be transferable. [*Approved May* 10, 1910.]

An Ordinance in Relation to the Salaries of the Assistant Assessors.

Be it ordained by the City Council of the City of Cambridge as follows:

An Ordinance, entitled "Duties and Salaries," is hereby amended as follows:

Section 30, of Chapter 28, of the Revised Ordinances of 1892, as amended to November 8, 1899, is hereby amended in relation to the salaries of Assistant Assessors, by striking out the line "$62.50 in the month of June, $62.50 in the month of July and the remainder $50.00 in August" and inserting in place thereof the words "$87.50 in the month of May and the remainder $87.50 in the month of June."

As amended this portion of the section will read as follows: Assistant Assessors, each (per year) $175.00 payable as follows: $87.50 in the month of May and the remainder $87.50 in the month June [*Approved May* 19, 1910.]

An Ordinance in Relation to the Construction, Maintenance and Inspection of Buildings.

Be it ordained by the City Council of the City of Cambridge as follows:

An Ordinance, entitled "An Ordinance in Relation to the Construction, Maintenance and Inspection of Buildings," is hereby amended as follows:

In Section 40—in the second paragraph by inserting after the word "thick" the words, "carried to the under side of the roof boards according to the requirements of Section 17 hereof, and if the Superintendent so directs"; also by striking out the last paragraph of this section.

In Section 51 in the second paragraph by inserting after the word "entrance" in the first and second lines the words "and stairway."

In Section 55—in the fourth paragraph by inserting before the word "when" in the first sentence the words "except in cases hereinafter provided for."

In Section 56—at the end of the second paragraph by inserting the following third paragraph.

"Where a block of tenement houses is so designed that an adequate distribution of light and air is obtained by means of open courts, the arrangements of yards and courts may be varied from the requirements of this ordinance, provided, however, that the width of the yard behind the whole block at the rear of the lot shall in no case be less than that required by this ordinance for a single tenement house, and provided further, that the whole structure or block shall not cover more than 75 per cent. of the total area of the lot."

As amended the paragraphs mentioned in the several sections will read as follows.

Section 40; second paragraph.

All wooden buildings hereafter constructed to form a block of two or more houses shall have a brick or concrete party wall between adjoining houses, which shall be not less than eight inches thick, carried to the under side of the roof boards, according to the requirements of Section 17 hereof, and if the Superintendent so directs, shall be carried twelve inches above the roof and shall be capped with a covering of stone, cement or metal securely fastened to the masonry.

Section 51: second paragraph.

Two separate houses may have one common entrance and stairway, provided the walls, floor and ceiling of said entrance and stairway are fireproofed to the satisfaction of the Superintendent.

Section 55: second paragraph.

Except in those cases hereinafter provided for, there shall be, behind every tenement house hereafter erected, a yard extending across the entire width of the lot, and at every point open from the ground to the sky unobstructed, except by fire-escapes or unenclosed outside stairs.

Section 55: fifth paragraph.

Except in those cases hereinafter provided for, when a tenement house hereafter erected does not front upon a street, a public alley or a passageway, not less than fifteen feet wide, the requirements in

this section as to yards shall apply to the front of such tenement houses as well as to the rear. Neither the yard behind one tenement house nor any part thereof shall be deemed to satisfy in whole or in part the requirement of a yard in front of another tenement house.

Section 56: end of second paragraph.

Where a block of tenement houses is so designed that an adequate distribution of light and air is obtained by means of open courts, may be varied from the requirements of this ordinance, provided, however, that the width of the yard behind the whole block at the rear of the lot shall in no case be less than that required by this ordinance for a single tenement house, and provided further, that the whole structure or block shall not cover more than 75 per cent. of the total area of the lot. [*Approved May* 19, 1910.

An Ordinance Concerning the Sale and Use of Blank Cartridges, Firecrackers, Fireworks, Etc.

Be it ordained by the City Council of the City of Cambridge as follows:

Section 1. It shall be unlawful for any person, firm or corporation to sell, offer or keep for sale, to loan or give away to any retail dealer, consumer or user, located within the city limits, or to fire, set off, explode or cause to explode any toy pistol, toy gun, or toy cannon, that can be used to fire a blank cartridge or a percussion cap; any detonating cane, any firecracker containing any explosive substance other than black gunpowder or exceeding two and one-half inches in length and five-eights of an inch in diameter, any fireworks containing any picric acid or picrates, or any blank cartridge, bomb, or percussion cap; provided that this section shall not apply to fireworks of the kind not containing any picric acid or picrates set off between the hours of seven o'clock P. M. and twelve o'clock P. M., or to the sale and manufacture of any article herein named to be shipped directly out of the city, or to the sale or use of explosives in blasting and in the firing of salutes by official authorities, or to the sale or use of blank cartridges for a duly licensed show or theatre, for signal purposes in athletic sports, for the firing of salutes with cannon, or to the sale for use or use by the militia or any organization of war veterans or in teaching the use of firearms by experts on days other than holidays.

Section 2. No person shall fire, set off, explode or cause to explode any firecrackers or fireworks within fifteen feet of a building.

Section 3. Whoever violates any provision of this ordinance shall be subject to a penalty not exceeding fifty dollars for each offence. [*Approved May 26, 1910.*

An Ordinance in Amendment of Section 13 of the Building Ordinance.

Be it ordained by the City Council of the City of Cambridge as follows:

Section 13 of the Building Ordinance is hereby amended in the eighteenth paragraph relating to projections over any public way or square by inserting at the end of the first sentence the words: "except that the City Council after notice to abuttors and a public hearing before a convention of the City Council, of which notice by publication shall have been given at the expense of the petitioners, may issue licenses or permits under the provisions of chapter 30 of the Revised Ordinances of the City of Cambridge for bay windows and similar projections over public streets of not less than forty feet in width, such bay window or other projection in no case to project more than three feet over such public way."

As amended the paragraph will read as follows:

"No part of any structure, except cornices, permanent awnings, string courses, window caps and sills, and outside means of egress as otherwise provided, shall project over any public way or square, except that the City Council after notice to abuttors and a public hearing before a convention of the City Council, of which notice by publication shall have been given at the expense of the petitioners, may issue licenses or permits under the provisions of chapter 30 of the Revised Ordinances of the City of Cambridge for bay windows and similar projections over public streets of not less than forty feet in width, such bay window or other projection in no case to project more than three feet over such public way. No cornice shall so project more than three feet, nor more than sixteen inches over a way of a width of thirty feet or less." [*Approved November 12, 1910.*

An Ordinance in Amendment of an Ordinance Entitled "Disposal of Litter and Rubbish in Streets, Commons and Public Squares.

Be it ordained by the City Council of the City of Cambridge as follows:

Section 1 of Chapter 47 of the Revised Ordinances of 1892 as amended to November 8, 1899, is hereby amended by adding at the end thereof the following paragraph:

"Nor shall any person distribute in a public street, or to persons on the street, or place or cause to be placed, handbills, cards, circulars or papers of any kind, except newspapers." [*Approved December 23, 1910.*

An Ordinance in Amendment of an Ordinance Entitled "Fire."

Be it ordained by the City Council of the City of Cambridge as follows:

Section 1 of an Ordinance entitled "Fire," approved March 22, 1910, is hereby amended by adding at the end of the second paragraph thereof the following:

"The permanent force of the Fire Department shall be increased by eight members who shall be assigned as the Chief Engineer may direct. A corresponding reduction of eight shall be made in the number of call members of the department." [*Approved February 10, 1911.*

An Ordinance in Amendment of an Ordinance, in Relation to Junk, Old Metals, Second-hand Articles and Rags.

Be it ordained by the City Council of the City of Cambridge as follows:

Chapter 42 of the Revised Ordinances of 1892 as amended to November 8, 1899, and as further amended to May 18, 1910, is hereby further amended by striking out the title, and inserting therefor the following:

"An Ordinance in Relation to Bottles, Junk, Old Metals, Second-hand Articles, Rags, Barrels and Boxes."

Also by striking out Section 2 and inserting in place thereof the following:

Section 2. Each license issued to such dealers in bottles, junk, old metals and second-hand articles and collector and dealer in rags, barrels and boxes, shall set forth the name of the party licensed, the nature of the business, and the building, place or vehicle in which it is to be carried on, and shall continue in force until the first day of May, next ensuing, unless sooner revoked. The place of business shall not be changed during the continuance of the license except by special consent of the Board of Aldermen.

The fees for licenses shall be as follows:

For keepers of shops for the purchase, storage, sale, barter or exchange of bottles, junk, old metals, second-hand articles and rags, except for keepers of shops for the purchase, storage, sale, barter or exchange of household furniture, and for such solicitors, collectors of and dealers in the aforesaid articles, Ten Dollars ($10.00) for each license.

For keepers of shops for the purchase, storage, sale, barter or exchange of household furniture, Five Dollars ($5.00) for each license.

For dealers in barrels and boxes, Five Dollars ($5.00) for each license.

For collectors of barrels and boxes, Fifty cents ($0.50) for each license. No such license should be transferable. [*Approved January 23, 1911.*

An Ordinance in Amendment of an Ordinance in Relation to Water Works.

Be it ordained by the City Council of the City of Cambridge as follows:

Chapter 27 of the Revised Ordinances of 1892, as amended to November 8, 1899, and as further amended from time to time to this date, is hereby amended as follows:

Section 15—Amended to read as below:

Section 15. In all cases of non-payment of the water rent in thirty days after the same is due, the Registrar, under the direction of the Water Board, shall cut off the supply; and the water shall not again be let on for the same occupant or owner, except upon the payment of the whole amount due; together with costs as determined by the Water Board; provided, that in case of specific supplies, or for

fractional parts of the year, when the water has been let on, it may be cut off immediately after notice given at the place that the rent is not paid, and may be let on again upon the conditions before mentioned. And the foregoing provisions shall apply when two or more parties take the water through the same service pipes, although one or more may have paid the proportion due from him or them.

Section 24—By striking out the entire section and inserting the following:

Section 24. The following rates shall be charged annually for the use of water, namely:

DWELLING-HOUSES.

	Per Year
Occupied by one family, for the faucet	$ 4 00
For each additional faucet, to be used by the same family	1 00
Each wash basin	1 00
Each set wash tub, with faucet	1 00
When a house is occupied by more than one family,—one faucet only being used by all, for each family	3 00
When a house is occupied by more than one family, the highest rates will be charged for each family having the water carried into their part of the house.	
For the first bath tub	3 00
When used by more than one family, for each family	2 50
For each additional bath tub	2 00
For the first water closet (self-regulating)	2 00
When used by more than one family, for each family	2 00
For each additional water closet (self-regulating)	1 00
For each water closet, not self-regulating	15 00
When used by more than one family, for each family	10 00
Each slop closet	2 00
When two faucets are used, one for hot and one for cold water, both emptying into one vessel, but one charge will be made for both, and the same rule applies to boarding houses.	
PROVIDED, That in no case shall the charge for the use of water by a private family, exclusive of water closet, not self-regulating, hose and stable, be more than	13 00
And including stable for not more than four animals	20 00
And including use of hose for stable for not more than four animals, and for garden not exceeding five thousand feet	25 00

APARTMENT HOUSES OR FAMILY HOTELS.

For the use of water in apartment houses or family hotels which are arranged in suites of rooms for different families, the charge to each tenement, exclusive of water closet not self-closing, shall not exceed $11.00.

(Apartment houses or family hotels, so called, shall be taken to mean and include dwellings constructed especially for and occupied by two or more families, each tenement being arranged in flats or suites of rooms connected, and having the conveniences of a distinct house, without regard to the location of the water fixtures. All other dwellings occupied by one or more families shall be classed under the head of dwelling houses.)

LODGING AND BOARDING HOUSES.

The charge shall be determined by meter.

STORES, ETC.

For each tenement occupied as a store, warehouse or office..	$ 3 00
Where two or more such tenements are supplied from the same faucet, each.....	2 50
For markets, saloons, workshops, or for purposes not included in any other classification, and not requiring more than an ordinary supply of water taken from one faucet, from.....$5 00 to	25 00
For the first self-regulating water closet or urinal used by the occupants of one tenement only.....	2 00
When used by occupant of more than one tenement, for each	2 00
For water closet, not self-regulating, for single tenement..	15 00
Each slop closet.....	2 00
For water closet, not self-regulating, used by occupant of more than one tenement, for each.....	10 00
For each additional fixture, one-half of the above charges shall be added.	

PRIVATE STABLES.

For first horse.....	$ 4 00
Each additional horse.....	2 00
Each cow.....	2 00

LIVERY AND TEAM STABLES.

For two horses or less number kept therein..... 4 00
For each horse above two..... 2 00
The above includes water for washing carriages, omnibuses and cars, without hose.
Where hose is used in any stable, an addition will be made to the above charges, as follows:—
For the first horse..... 5 00
For each additional horse..... 50

HOSE.

For washing windows and other similar uses, including watering gardens of less than 5,000 feet..... 5 00
For other cases arrangements can be made with the Water Board.

PRIVATE GARAGE.

For hose used for washing purposes..... 5 00

PUBLIC GARAGE.

The charge shall be determined by meter.

The Water Board shall have power to ascertain by meter the quantity of water used in any case, and a meter shall be applied whenever, in the judgment of the Board, it is expedient. The charge for metered water shall be based on annual consumption; and the Water Board shall determine the application of the rates.

The rates shall be as follows:—

For the first 50,000 cubic feet, 15c per 100 cubic feet.

From 50,000 to 200,000 cubic feet, 12c per 100 cubic feet.

From 200,000 to 500,000 cubic feet, 11c per 100 cubic feet.

From 500,000 cubic feet to 5,000,000 cubic feet, 8c per 100 cubic feet.

Over 5,000,000 cubic feet, 7½ per 100 cubic feet.

In no case, however, shall the minimum charge for metered water be less than five dollars per annum.

The foregoing rates shall be subject to amendment and revision by the City Council at any time without further notice.

All water passing through a meter will be charged for, whether used or wasted.

If a meter gets out of order and fails to register, the consumer shall be charged at the average daily consumption as shown by the meter when in order.

All charges for metered water shall be made to the owners of the property.

The revised schedule for all metered premises to take effect April 1, 1911. The revised schedule, for all unmetered premises to take effect May 1, 1911.

All bills for water furnished by meters shall be payable quarterly at the office of the city treasurer; and if the same be not paid within thirty days after the end of the quarter, the Registrar, under the direction of the Water Board, is instructed to cut off the supply, after sending a special notice that the water will be cut off for non-payment, and the water shall not again be let on for the same occupant or owner, except upon the payment of the whole amount due, together with costs as determined by the Water Board.

When water is required for purposes which are not specified in the foregoing tariff, the rate shall be fixed by the board.

The Board shall have the power to prevent the erection of yard hydrants, and water shall not be supplied to any water-closets unless such water-closets are constructed to conform to the plumbing ordinances. [*Approved February 28*, 1911.

An Ordinance in Amendment of an Ordinance Entitled "Sewers."

Be it ordained by the City Council of the City of Cambridge as follows:

Chapter 23 of the Revised Ordinances of 1892 as amended to November, 8, 1899, is hereby amended as follows:—

By striking out Section 16 of said Chapter 23 and inserting in place thereof the following:—

Section 16. Whoever cuts into, interferes with or obstructs a common sewer, or enters a private drain therein, except as herein provided, or places or deposits in any street catch-basin or common sewer, any animal or vegetable matter or any other filthy substance, solid or liquid, or any naphtha, gasolene or other explosive or dangerous substances, or violates any of the provisions of this chapter, shall be liable to a penalty of not less than five dollars and not more than fifty dollars. [*Approved March 7*, 1911.

An Ordinance in Amendment of an Ordinance Entitled Water Works.

Be it ordained by the City Council of the City of Cambridge as follows:

Section 3 of Chapter 27 of the Revised Ordinances of 1892, as amended to November 8, 1899, is hereby further amended by adding after the word "finance" in the last line the following, viz.:—

"excepting those for police service. When such services are required, the Water Board shall apply to the chief of police for a detail of as many officers as it requires for patrol service in Cambridge, and while in the employ of said Board, the said officers shall be under the control of the Water Board and shall be paid by said Board." [*Approved March* 10, 1911.

An Ordinance in Amendment of an Ordinance Entitled Fire.

Be it ordained by the City Council of the City of Cambridge as follows:

Section 1 of an Ordinance entitled Fire, approved February 25, 1911, is hereby amended in the second paragraph thereof, by striking out the words and figures "ninety (90) permanent men and forty-eight (48) call men" and inserting in place thereof the words and figures "ninety-two (92) permanent men and forty-six (46) call men." [*Approved March* 22, 1911.

REGULATIONS OF BOARD OF ALDERMEN FROM APRIL 1, 1910, TO APRIL 1, 1911.

In Board of Aldermen, March 15, 1911.

Ordered, That the General Regulations for the government of the police force, be and hereby are amended as follows:—

In Section One by striking out the entire section and inserting the following:—

The police force shall consist of a Chief of Police, a Captain for each police district, a Chief Inspector to rank as Captain, 3 Inspectors to rank as Lieutenants, 8 Lieutenants, 12 Sergeants, 102 patrolmen and 22 reserve patrolmen, and eight drivers of patrol wagons and ambulances; when a vacancy occurs in the position of driver, the Chief of Police may assign a patrolman as such driver, temporarily, until such position is filled by the Mayor.

In Section Two by striking out the entire section and inserting the following:—

There shall be four police districts; the first comprising the eighth and ninth wards; the second comprising the sixth and seventh wards and so much of the fifth ward as lies westerly of Prospect Street and so much of the fourth ward as lies westerly of Norfolk Street and southerly of Broadway to Mechanic Square, then southerly of Broad Canal to Third Street, and so much of ward one as lies easterly of Third Street and southerly of Binney Street; the third comprising the second and third and so much of the fifth ward as lies easterly of Prospect Street and northerly of Hampshire Street and easterly of Norfolk Street and northerly of Broadway to Mechanic Square, and so much of ward one as lies westerly of Third Street and northerly of Binney Street; and the fourth comprising wards ten and eleven. [*Approved March* 18, 1911.

In Board of Aldermen, March 15, 1911.

Whereas: The City Council by an ordinance approved March 10, 1911, has provided for a detail of police officers for patrol service

in Cambridge, under the direction of the Water Board, Therefore be it

Ordered, That the general regulations for the government of the police force of this city be amended in Section One thereof by providing for an addition of one patrolman, in order that the official heretofore doing police duty at Fresh Pond under the authority of the Water Board may be merged with the regular police force. [*Approved March* 18, 1911.

MAYORS OF THE CITY OF CAMBRIDGE

(From 1846 to 1911 Inclusive.)

James D. Green	From	May,	1846,	to April,	1848
Sydney Willard	"	April,	1848,	to April,	1851
George Stevens	"	April,	1851,	to April,	1853
James D. Green	"	April,	1853,	to April,	1854
*Abraham Edwards	"	April,	1854,	to January,	1855
Zebina L. Raymond	"	January,	1855,	to January,	1856
John Sargent	"	January,	1856,	to January,	1860
†James D. Green	"	January,	1860,	to July 24,	1861
‡Charles Theo Russell	"	July 31,	1861,	to January,	1863
George C. Richardson	"	January,	1863,	to January,	1864
Zebina L. Raymond	"	January,	1864,	to January,	1865
J. Warren Merrill	"	January,	1865,	to January,	1867
Ezra Pamenter	"	January,	1867,	to January,	1868
Charles H. Saunders	"	January,	1868,	to January,	1870
Hamlin R. Harding	"	January,	1870,	to January,	1872
Henry O. Houghton	"	January,	1872,	to January,	1873
Isaac Bradford	"	January,	1873,	to January,	1877
Frank A. Allen	"	January,	1877,	to January,	1878
Samuel L. Montague	"	January,	1878,	to January,	1880
James M. W. Hall	"	January,	1880,	to January,	1881
James A. Fox	"	January,	1881,	to January,	1885
William E. Russell	"	January,	1885,	to January,	1889
Henry H. Gilmore	"	January,	1889,	to January,	1891
Alpheus B. Alger	"	January,	1891,	to January,	1893
William A. Bancroft	"	January,	1893,	to January,	1897
Alvin F. Sortwell	"	January,	1897,	to January,	1899
Edgar R. Champlin	"	January,	1899,	to January,	1901
David T. Dickson	"	January,	1901,	to January,	1902
John H. H. McNamee	"	January,	1902,	to January,	1904
Augustine J. Daly	"	January,	1904,	to January,	1906
Charles H. Thurston	"	January,	1906,	to January,	1907
Walter C. Wardwell	"	January,	1907,	to April,	1909
William F. Brooks	"	April,	1909,	to April,	1911
J. Edward Barry	"	April,	1911,	to	

*Municipal year changed. †Resigned. ‡First elected by the City Council.

PRESIDENTS OF THE BOARD OF ALDERMEN

1888	Edward W. Hincks.	1901	George E. Saunders.
1889	John H. Corcoran.	1902	James F. Aylward.
1890	Alvin F. Sortwell.	1903	*John W. Conveney.
1891	William A. Bancroft.	1903	Timothy W. Good.
1892	William A. Bancroft.	1904	John W. Coveney.
1893	John R. Fairbairn.	1905	J. Edward Barry.
1894	John G. Thorogood.	1906	Charles H. Lake.
1895	John R. Fairbairn.	1907	Charles H. Lake.
1896	John R. Fairbairn.	1908	Edward B. James.
1897	Russell Bradford.	1909	Edward B. James.
1898	Russell Bradford.	1910	Edward B. James.
1899	Walter C. Wardwell.	1911	James T. Barrett.
1900	Walter C. Wardwell.		

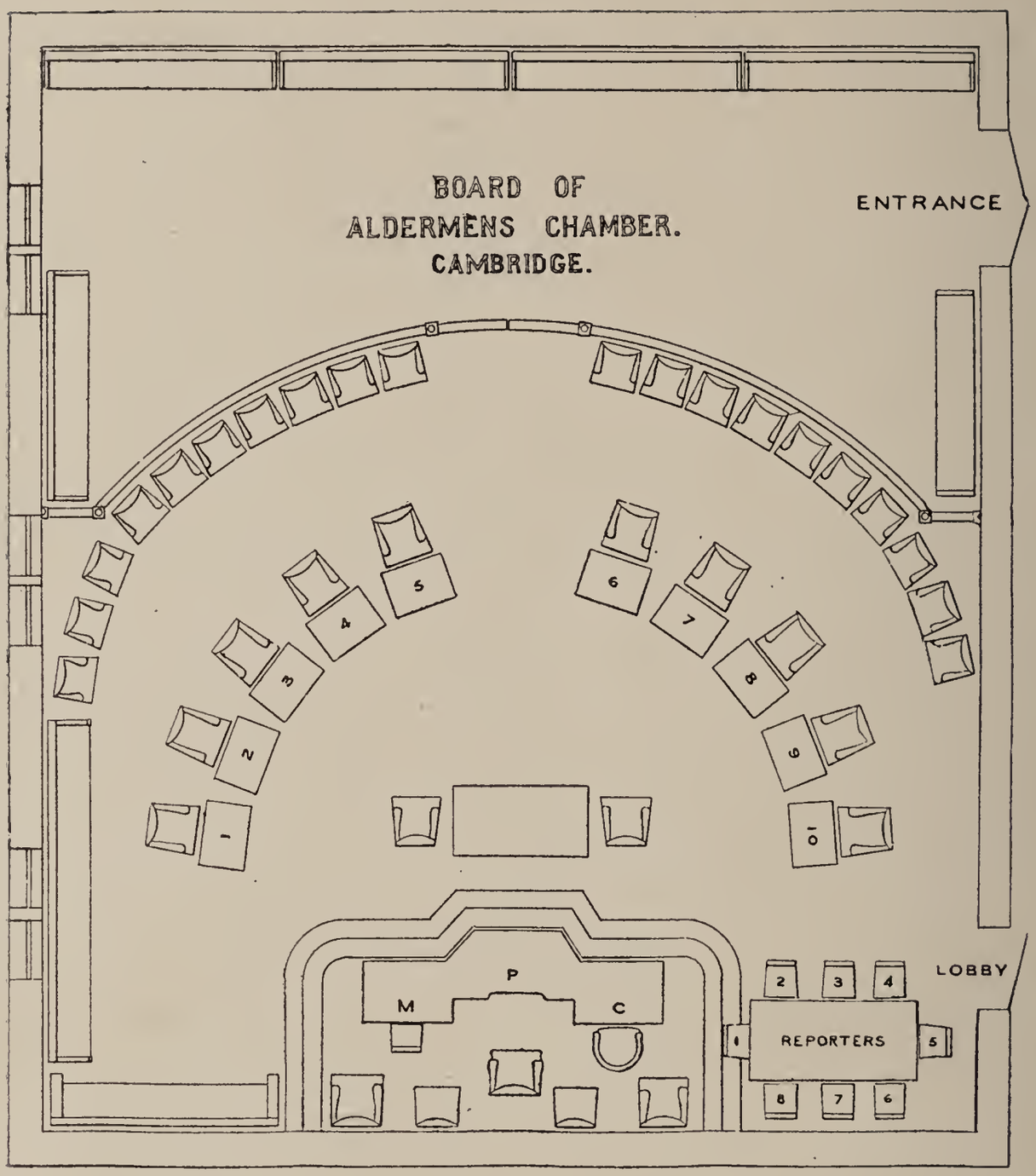
* John W. Coveney resigned March 10, 1903, and Timothy W. Good elected to the vacancy.

PRESIDENTS OF THE COMMON COUNCIL

1846 *Isaac Livermore.
1847 *John Sargent.
1848 *John C. Dodge.
1849 *Samuel P. Heywood.
1850 *Samuel P. Heywood.
1851 *John S. Ladd.
1852 *John Sargent.
1853 *John Sargent.
1854 *John C. Dodge.
1855 *Alanson Bigelow.
1856 *Ezra Ripley. Resigned
Elected January 31.
1856 *George S. Saunders.
Elected January 31.
1857 *George S. Saunders.
1858 *James C. Fisk.
1859 *James C. Fisk.
1860 *Hamlin R. Harding.
1861 *Hamlin R. Harding.
1862 *Jared Shepard. Resigned
September 17.
1862 *Knowlton S. Chaffee.
Elected September 24.
1863 *George S. Saunders.
1864 *George S. Saunders.
1865 *John S. March.
1866 *John S. March.
1867 *Marshall T. Bigelow.
1868 *Knowlton S. Chaffee.
Resigned February 4.
1868 *Henry W. Muzzey.
Elected February 4.
1869 *Henry W. Muzzey.
1870 *Joseph H. Converse.
1871 *Joseph H. Converse.
1872 *Alvaro Blodgett.
1873 *Alvaro Blodgett.
Resigned June 17.
1873 Francis H. Whitman.
Elected June 17.
1874 George F. Piper.
1875 George F. Piper.
1876 Frank A. Allen.
1877 *Perez G. Porter.
1878 *George S. Saunders.
1879 *George S. Saunders.
1880 *Charles Walker.
1881 *Charles Walker.
1882 George H. Howard.
1883 George H. Howard.
1884 George H. Howard.
1885 Cornelius G. H. Bennink.
1886 John H. Corcoran.
1887 John H. Corcoran.
1888 *Alvin F. Sortwell.
1889 *Edward A. Bingham.
1890 *Edward A. Bingham.
1891 Edward C. Wheeler.
1892 Herbert A. Chase.
1893 J. Henry Russell.
1894 Charles M Conant.
1895 *John L. Odiorne.
1896 *John L. Odiorne.
1897 Albert S. Apsey.
1898 George E. Saunders.
1899 William F. Brooks.
1900 John D. Merrill.
1901 John D. Merrill.
1902 *Thorndike Spalding.
1903 Edward E. Clark.
1904 Harry N. Stearns.
1905 George A. Giles.
1906 George A. Giles.
1907 *Henry C. Stetson.
1907 †Robert W. Hunter.
1908 Henry J. Winslow.
1909 Jesse W. Moreland.
1910 Irving N. Linnell.
1911 Frederick H. Burke.

* Deceased.

† Elected to fill vacancy.



KEY TO
Board of Aldermen's Chamber
Cambridge
1911

P—James T. Barrett, *President.*

1.	Alderman	Sullivan.	6.	Alderman	Hurley.
2.	"	O'Neil.	7.	"	Danehy.
3.	"	Curley.	8.	"	O'Connor.
4.	"	Black.	9.	"	Callahan.
5.	"	Corkery.	10.	"	Nelligan.

C—Edward J. Brandon, *City Clerk.*

M { *Frank T. Evans, †A. Frank Montgomery } *City Messenger.*

Reporters.

1 J. Lee Robinson, Cambridge Tribune
2 Harry J. Mahoney, Cambridge Sentinel
3 George A. Broderick, Boston Post
4 James W. Bean and Charles F. Manning Cambridge Chronicle and Boston Globe

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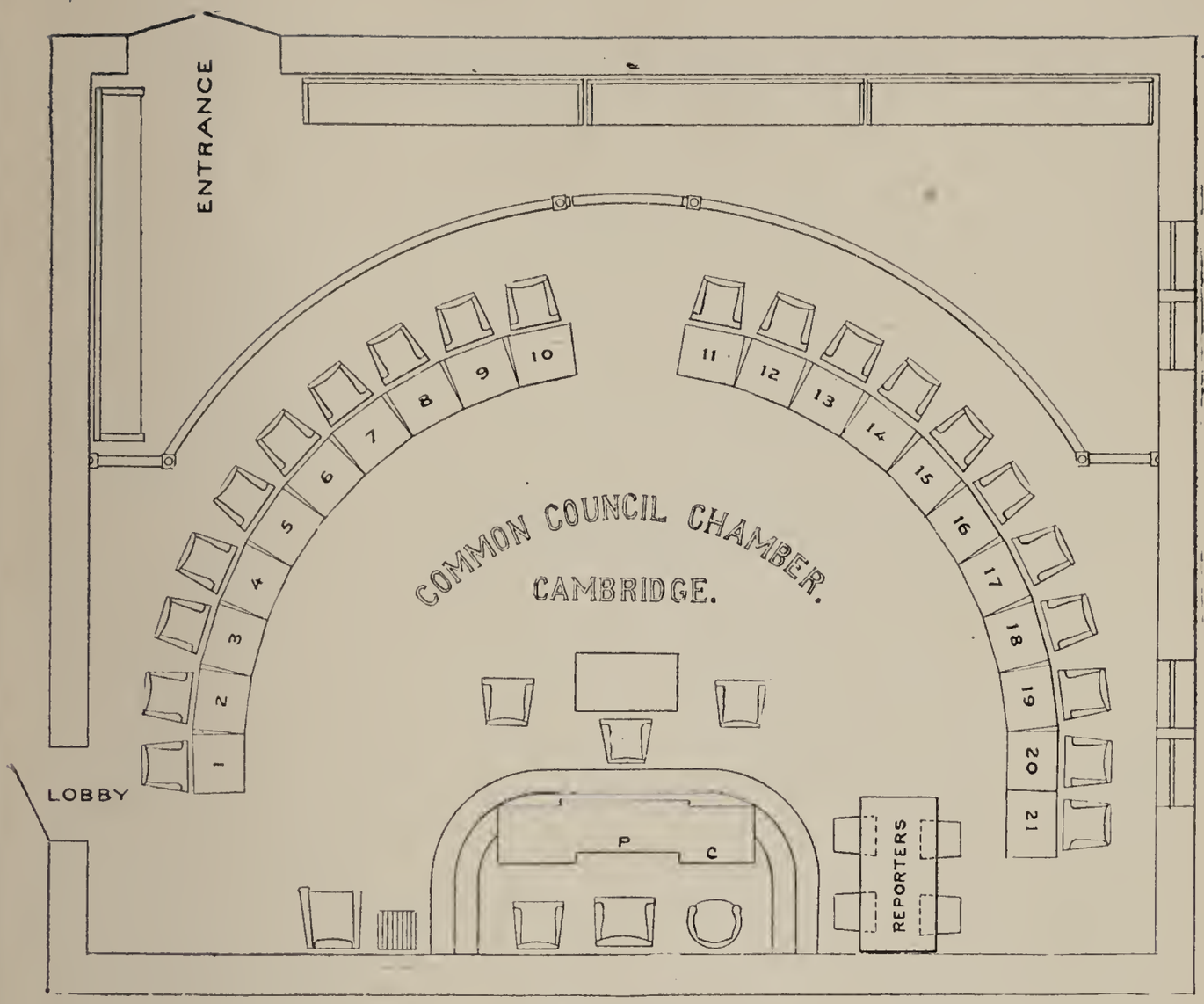
* To June 1, 1911
† Assumed office June 1, 1911



KEY TO
Common Council Chamber
Cambridge
1911

P—Frederick H. Burke.

1.	Councilman	Horan.	11.	Councilman	Thompson.
2.	"	Leahy.	12.	"	Norris.
3.	"	Mallahan.	13.	"	Field.
4.	"	McAvoy.	14.	"	Metcalf.
5.	"	Delaney.	15.	"	Sander.
6.	"	McElroy.	16.	"	Thayer.
7.	"	Clauss.	17.	"	Toomey.
8.	"	Carruth.	18.	"	Gaffney.
9.	"	Tweedie.	19.	"	Bannan.
10.	"	Swaim.	20.	"	Mahoney.

Councilman O'Hara.

C—Edward A. Counihan, *Clerk*. Edwin F. Pidgeon, *Page*.

Reporters.

5 Philip R. Ammidon, Cambridge Chronicle
6 John D. Atkinson, Cambridge Sentinel
7 Archibald M. Gove, Cambridge Tribune

CITY GOVERNMENT

Mayor

J. EDWARD BARRY, 347 Broadway.

Board of Aldermen

President,

JAMES T. BARRETT.

James T. Barrett	97 Otis Street	Ward 2
James F. Black	145 Willow Street	" 3
Dennis J. Callahan	24 Rice Street	" 11
Jeremiah Corkery	88 Putnam Avenue	" 7
Patrick J. Curley	25 Donnell Street	" 10
William Danehy	1 Wadsworth Street	" 4
Dennis F. Hurley	22 Marion Street	" 3
Peter J. Nelligan	23 Rindge Avenue	" 11
Michael M. O'Connor	26 Woodbridge Street	" 11
Robert H. O'Neil	6 Lamson Place	" 4
Joseph A. Sullivan	155 Bridge Street	" 1

Clerk,

EDWARD J. BRANDON.

Messenger,

*FRANK T. EVANS.

†A. FRANK MONTGOMERY.

Regular meetings on Tuesday evenings at 8 o'clock.

* To June 1, 1911.
† Assumed office June 1, 1911.

Common Council

President,

FREDERICK H. BURKE.

Eugene B. Bannan	5 Beaver Street	Ward 8
Frederick H. Burke	76 Sixth Street	" 2
Charles E. Carruth, 2d	9 Laurel Street	" 7
Frederic F. Clauss	Glenwood Avenue	" 6
Mark R. Delaney	17 Washington Street	" 4
Charles F. Field	165 Chestnut Street	" 6
Charles H. Gaffney	204 Third Street	" 1
Timothy J. Horan	36 Camp Street	" 11
John T. Leahy	11 Montgomery Street	" 11
Michael J. Mahoney	102 Willow Street	" 3
Frank Leo Mallahan	170 Spring Street	" 2
Frank J. McAvoy	116 Berkshire Street	" 3
Joseph J. McElroy	63 Charles Street	" 1
Nelson C. Metcalf	22 Linnaean Street	" 10
Forris W. Norris	14 St. Paul Street	" 5
Thomas E. O'Hara	1208 Massachusetts Avenue	" 8
William J. E. Sander	21 Holmes Street	" 9
Roger D. Swaim	190 Brattle Street	" 9
Farwell E. Thayer	44 Garfield Street	" 10
Ernest A. Thompson	24 Inman Street	" 5
Lawrence J. Toomey	297 Main Street	" 4
James K. Tweedie	240 Franklin Street	" 7

Clerk,

EDWARD A. COUNIHAN.

Page,

EDWIN F. PIDGEON.

Regular Meetings on Tuesday evenings at 8 o'clock.

JOINT STANDING COMMITTEES OF THE CITY COUNCIL

Accounts. Aldermen Corkery and Curley; Councilmen Burke, Sander and Swaim.

Assessors' Department. Aldermen Hurley and Black; Councilmen Horan and Clauss.

City Engineering. Aldermen Curley and O'Neil; Councilmen McElroy, O'Hara and Carruth.

City Home. Aldermen Callahan and Sullivan; Councilmen Tweedie, Field and O'Hara.

Claims. President Barrett, Aldermen Corkery, Curley and Danehy; President Burke, Councilmen Toomey, Leahy, Mallahan, Thompson and Sander.

Finance. President Barrett, Aldermen O'Connor, Black and Nelligan, President Burke, Councilmen Horan, Gaffney, Mallahan, Norris and Carruth.

Fire Department. Aldermen O'Connor and Callahan; Councilmen Delaney, O'Hara and Thayer.

Health. Aldermen Black and Curley; Councilmen Toomey, Metcalf and McElroy.

Highways. Aldermen Callahan, O'Neil and Sullivan; Councilmen Mahoney, Delany, McAvoy and McElroy.

Legal Matters. Aldermen O'Connor and Nelligan; Councilmen Sander, Thayer and Gaffney.

Legislative Matters. President Barrett; Aldermen Corkery, Black and Nelligan; President Burke; Councilmen Delaney, Mahoney, Horan, Swaim and Thompson.

Ordinances. Aldermen Nelligan and Hurley; Councilmen Field, Mallahan and Bannan.

Parks. Aldermen Callahan and Hurley; Councilmen Bannan, Gaffney and Carruth.

Printing. Aldermen O'Connor and O'Neill; Councilmen O'Hara Metcalf and McAvoy.

Public Property. Aldermen Hurley and Sullivan; Councilmen McAvoy, Norris and Bannan.

Public Instruction. Aldermen Nelligan and O'Neil; Councilmen Mahoney, Thayer and Delaney.

Water Supply. President Barrett and Alderman O'Connor; Councilmen Mahoney, Horan and Field.

Wires and Lamps. Aldermen O'Neil and Sullivan; Councilmen Mallahan, Mahoney and Clauss.

STANDING COMMITTEES OF THE BOARD OF ALDERMEN.

Bonds. Aldermen Hurley, Black and Curley.

Cemeteries. Aldermen Corkery, Nelligan and Danehy.

Claims. President Barrett, Aldermen Corkery, Curley and Danehy.

Elections and Returns. Aldermen Callahan, Danehy and Black.

Fire Department. Aldermen O'Connor, Callahan and Sullivan.

Health. Aldermen Black, Curley and Hurley.

Highways. Aldermen Callahan, O'Neil and Sullivan.

Licenses. Aldermen Sullivan, Nelligan and O'Neil.

Parks. Aldermen Callahan, Hurley and O'Neil.

Police. Aldermen Black, Danehy and Nelligan.

Rules and Orders. Aldermen O'Connor, O'Neil and Nelligan.

Sewers. Aldermen Callahan, Curley and Corkery.

Soldiers' Aid. President Barrett, Aldermen Corkery, Black, Danehy and Sullivan.

Street Railways. Aldermen Curley, O'Neil and Hurley.

SPECIAL COMMITTEES OF ALDERMEN.

Matters from the Files of the Last Board of Aldermen. Aldermen Corkery and Nelligan.

Reorganization of Police Force. Aldermen Nelligan, Sullivan and Danehy.

Conditions of Telephone Service. Aldermen Hurley, Corkery and O'Neil.

JOINT SPECIAL COMMITTEES.

Matters Referred from Last City Council. Aldermen Curley and O'Neil; Councilmen Delaney, Sander, Metcalf and Bannan.

On Topics in the Mayor's Inaugural Address. Aldermen Danehy and Hurley; Councilmen Mallahan, Norris, Carruth and Thompson.

Amendments to the City Charter. President Barrett, Aldermen Hurley and O'Connor; President Burke, Councilmen McAvoy, Gaffney, Thayer, Tweedie and Clauss.

Rapid Transit. President Barrett, Aldermen Hurley and Black; Councilmen Mahoney, McElroy, Metcalf and Swaim.

Observance of Independence Day. Aldermen Black and Callahan; Councilmen Mallahan, McAvoy, Mahoney, Metcalf, Tweedie and Delaney.

Revision of Sewer Assessments. Aldermen Callahan and Curley; Councilmen Mahoney, Norris and Horan.

Certain Offers from Harvard College. President Barrett and Aldermen Corkery and Danehy; President Burke and Councilmen Horan, Swaim and Tweedie.

Reorganization of Fire Department. Aldermen Curley, O'Connor and Corkery; Councilmen Delaney, Horan and Carruth.

Observance of Labor Day. Aldermen O'Connor and O'Neil; Councilmen Gaffney, McElroy, Mahoney, Horan and Field.

STANDING COMMITTEES OF THE COMMON COUNCIL.

Bills in Second Reading. Councilmen Leahy, Field and Thompson.

Elections and Returns. Councilmen Tweedie, Bannan and Norris.

Enrolled Ordinances. Councilmen Toomey, Sander and Swaim.

Rules and Orders. Councilmen Toomey, Leahy and Swaim.

COMMITTEE APPOINTMENTS OF MEMBERS OF THE BOARD OF ALDERMEN.

President Barrett. Claims, (Joint and of Alderman), Finance, Legislative Matters, Water Supply, Soldiers' Aid, Amendments to the City Charter, Rapid Transit, Certain Offers from Harvard College.

Alderman Black. Assessor's Department, Finance, Health (Joint and of Aldermen), Legislative Matters, Bonds, Election and Returns, Police, Soldiers' Aid, Rapid Transit, Observances of Independence Day.

Alderman Callahan. City Home, Fire Department (Joint and of Aldermen), Highways (Joint and of Aldermen), Revision of Sewer Assessments, Parks (Joint and of Aldermen), Elections and returns, Sewers, Observance of Independence Day

Alderman Corkery. Accounts, City Engineering, Claims (Joint and of Aldermen), Health (Joint and of Aldermen), Reorganization of Fire Department, Bonds, Sewers, Street Railways, Certain Offers from Harvard College, Matters Referred from Last Board of Aldermen, Conditions of Telephone Service.

Alderman Curley. Accounts, City Engineering, Claims (Joint and of Aldermen), Health (Joint and of Aldermen), Revision of Sewer Assessments, Reorganization of Fire Department, Matters Referred from Last City Council.

Alderman Danehy. Claims (Joint and of Aldermen), Cemeteries, Elections and Returns, Police, Soldiers' Aid, Reorganization of Police Force, On Topics in the Mayor's Inaugural Address, Certain Offers from Harvard College.

Alderman Hurley. Assessor's Department, Ordinances, Parks (Joint and of Aldermen), Public Property, Bonds, Amendments to

the City Charter, Rapid Transit, Health (of Aldermen), Street Railways, Conditions of Telephone Service, On Topics in the Mayor's Inaugural Address.

Alderman Nelligan. Finance, Legal Matters, Legislative Matters, Ordinances, Matters Referred from Last Board of Aldermen, Public Instruction, Cemeteries, Licenses, Police, Rules and Orders, Reorganization of Police Force.

Alderman O'Connor. Finance, Fire Department (Joint and of Aldermen), Legal Matters, Printing, Water Supply, Reorganization of Fire Department, Rules and Orders, Amendments to City Charter, Observance of Labor Day.

Alderman O'Neil. City Engineering, Highways (Joint and of Aldermen), Printing, Public Instruction, Matters Referred from Last City Council, Wires and Lamps, Licenses, Parks (of Aldermen), Rules and Orders, Street Railways, Conditions of Telephone Service, Observance of Labor Day.

Alderman Sullivan. City Home, Highways (Joint and of Aldermen), Public Property, Wires and Lamps, Fire Department (of Aldermen), Licenses, Soldiers' Aid, Reorganization of Police Force.

COMMITTEE APPOINTMENTS OF MEMBERS OF THE COMMON COUNCIL.

President Burke. Accounts, Claims, Finance, Legislative Matters, Amendments to the City Charter, Certain Offers from Harvard College.

Councilman Bannan. Ordinances, Parks, Property, Matters Referred from Last City Council, Election and Returns.

Councilman Carruth. City Engineering, Finance, Parks, On Topics in Mayor's Inaugural Address, Reorganization of Fire Department.

Councilman Clauss. Assessor's Department, Wires and Lamps, Amendments to the City Charter.

Councilman Delaney. Fire Department, Highways, Legislative

Matters, Public Instruction, Matters Referred from Last City Council, Reorganization of Fire Department, On Topics in the Mayor's Inaugural Address, Observance of Independence Day.

Councilman Field. City Home, Ordinances, Water Supply, Bills in Second Reading, Observance of Labor Day.

Councilman Gaffney. Finance, Legal Matters, Parks, Amendments to the City Charter, Observance of Labor Day.

Councilman Horan. Assessor's Department, Legislative Matters, Water Supply, Revision of Sewer Assessments, Certain Offers from Harvard College, Reorganization of Fire Department, Observance of Labor Day.

Councilman Leahy. Claims, Bills in Second Reading, Rules and Orders.

Councilman Mahoney. Highways, Legislative Matters, Public Instruction, Water Supply, Wires and Lamps, Rapid Transit, Revision of Sewer Assessments, Observance of Independence Day, Observance of Labor Day.

Councilman Mallahan. Claims, Finance, Ordinances, Wires and Lamps, On Topics in Mayor's Inaugural Address, Observance of Independence Day.

Councilman McAvoy. Highways, Printing, Public Property, Amendments to the City Charter, Observance of Independence Day

Councilman McElroy. City Engineering, Health, Highways, Rapid Transit, Observance of Labor Day.

Councilman Metcalf. Health, Printing, Matters Referred from Last City Council, Rapid Transit, Observance of Independence Day.

Councilman Norris. Finance, Public Property, On Topics in Mayor's Inaugural Address, Elections and Returns, Revision of Sewer Assessments.

Councilman O'Hara. City Engineering, City Home, Fire Department, Printing.

Councilman Sander. Accounts, Legal Matters, Matters Referred from Last City Council, Enrolled Ordinances.

Councilman Swaim. Accounts, Legislative Matters, Rapid Tran-

sit, Enrolled Ordinances, Rules and Orders, Certain Offers from Harvard College.

Councilman Thayer. Fire Department, Legal Matters, Public Instruction, Amendments to the City Charter.

Councilman Thompson. Claims, Legislative Matters, On Topics in Mayor's Inaugural Address, Bills in Second Reading.

Councilman Toomey. Claims, Health, Enrolled Ordinances, Rules and Orders.

Councilman Tweedie. City Home, Amendments to the City Charter, Elections and Returns, Certain Offers from Harvard College, Observance of Independence Day.

DEPARTMENTS AND BOARDS

EXECUTIVE DEPARTMENT.

J. Edward Barry . . . . . *Mayor.*
Edward A. Counihan . . . . *Mayor's Clerk.*
Office Hours: 8 A. M. to 4 P. M.
Office, Rooms 17 and 18, City Hall. Telephone 463.

CITY CLERK DEPARTMENT.

Edward J. Brandon . . . . . *City Clerk.*
*Albert M. Pear . . . . . *Assistant City Clerk.*
†Thomas J. Conrick . . . . *Assistant City Clerk.*
Office Hours: 8 A. M. to 4 P. M.
Office, Rooms 8 and 9, City Hall. Telephone 419.

TREASURY DEPARTMENT.

*William W. Dallinger *City Treasurer and Collector of Taxes.*
†Timothy W. Good
Office Hours: 8 A. M. to 2 P. M.
Office, Rooms 3 and 4, City Hall. Telephone 602.

AUDITING DEPARTMENT.

Charles H. Thurston . . . . . *City Auditor.*
Office Hours: 8 A. M. to 4 P. M.
Office, Rooms 1 and 2, City Hall. Telephone 1001.

CLERK OF COMMITTEES DEPARTMENT.

John McDuffie . . . . . *Clerk of Committees.*
Eben W. Pike . . . . . *Assistant.*
Office Hours: 8 A. M. to 4 P. M.
Office, Room 16, City Hall. Telephone 818.

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* To June 1, 1911.
† Assumed office June 1, 1911.

CITY MESSENGER DEPARTMENT.

*Frank T. Evans . . . . . *City Messenger.*
†A. Frank Montgomery . . . . *City Messenger.*
Edwin F. Pidgeon . . . . *Assistant.*

Office Hours: 8 A. M. to 4 P. M.
Office, Room 20, City Hall. Telephone 1900.

LAW DEPARTMENT.

James F. Aylward . . . . . *City Solicitor.*

Office Hours (at City Hall): 8 A M. to 12 M.
Office, Room 17, City Hall. Telephone 463.
Boston Office, 542 Tremont Building. Telephone 168 Haymarket.

ENGINEERING DEPARTMENT.

Lewis M. Hastings . . . . . *City Engineer.*
Theodore L. Pike . . . . . *Supt. of Sewers.*

Office Hours: 8 A. M. to 5 P. M.
Office, Rooms 30 and 31, City Hall. Telephone 471.

FIRE DEPARTMENT.

Nathaniel W. Bunker . . . . . *Chief.*
James M. Casey . . . . . *Assistant Chief.*

Office Hours, 9 A. M. to 10 P. M.
Office, Room 28, City Hall. Telephones 125 and 1900.

INSPECTION ETC., OF BUILDINGS DEPARTMENT.

Jeremiah F. Downey,
Superintendent of Public Buildings and Inspector of Buildings.

Office Hours: 8 A. M. to 4 P. M.
Office, Room 28, City Hall. Telephone 125.

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* To June 1, 1911.
† Assumed office June 1, 1911.

HEALTH DEPARTMENT—BOARD OF HEALTH.

JEREMIAH S. SULLIVAN . . . . . *Chairman.*

Term, three years.

JEREMIAH S. SULLIVAN . . . . . Term expires 1912.
PATRICK J. FINNEGAN . . . . . Term expires 1913.
ELIE H. LA PIERRE . . . . . Term expires 1914.
KITTIE L. MAGOUN . . . . . *Secretary.*
JAMES B. SOPER . . . . . *Clerk.*
ERNEST H. SPARROW, M.D. . . . . *Inspector of Milk.*
BRADFORD H. PEIRCE, M.D. . . . . *Medical Inspector.*
JOSEPH L. JOHNSON . . . . . *Inspector of Provisions.*

Office Hours: 8 A. M. to 4 P. M.
Rooms 25 and 26, City Hall. Telephone 345.

POLICE DEPARTMENT.

FREDERICK B. PULLEN . . . . . *Chief of Police.*

Office Hours: 8 A. M. to 6 P. M.
Office at Central Square Building. Telephone 423.

STREET DEPARTMENT.

EDWARD W. QUINN . . . . . *Supt. of Streets.*
John H. Holt . . . . . *Clerk.*

Office Hours: 8 A. M. to 4 P. M.
Office, Room 12, City Hall. Telephone 435.

CITY ELECTRICAL DEPARTMENT.

TIMOTHY C. O'HEARN . . . . . *City Electrician.*

Office Hours: 8 A. M. to 4 P. M.
Office, Room 28, City Hall. Telephone 125.
Central Fire Alarm Office, Telephone 363.

INSPECTOR OF ANIMALS DEPARTMENT.

CHARLES E. HADCOCK, M.D.V. . . *Inspector of Animals.*

Residence, 473 Broadway. Telephone 662.
(No Office or Hours.)

ASSESSORS' DEPARTMENT—BOARD OF ASSESSORS.

*Timothy W. Good	*Chairman.*
†William M. Hogan	*Secretary.*

Term, Three years.

*Timothy W. Good	Term expires 1911.
†William M. Hogan	Term expires 1911.
Jeremiah F. Donovan	Term expires 1912.
Bernard F. Fallon	Term expires 1913.
Carrie A. Estes, Genevieve G. Hannon, Ruth E. O'Brien	*Clerks.*

* Resigned May, 1911.
† Assumed office June 1, 1911.

ASSISTANT ASSESSORS.

Ward 1	William J. Dinan.
" 2	Edward J. Sweeney.
" 3	Patrick J. Murphy.
" 4	Thomas McDermott.
" 5	John C. Haverty.
" 6	Thomas F. Mahoney.
" 7	John J. McNamara, Jr.
" 8	James M. Shannon.
" 9	Patrick Landrigan.
" 10	Hugh V. Conley.
" 11	Denis J. Moynihan.

Office Hours: 8 A. M. to 4 P. M.

Office, Rooms 21 and 22, City Hall. Telephone 244.

BRIDGE DEPARTMENT.

Francis J. Smith . . . . . *Bridge Commissioner.*

Office Hours: 8 A. M. to 4 P. M.

Office, Room 12, City Hall. Telephone 435.

SEALER OF WEIGHTS AND MEASURES.

Felix C. McBride	*Sealer.*
Emery T. Morris	*Deputy Sealers.*
Hugh H. Healey	*Deputy Sealers.*

Office Hours: Fridays, 8 A. M. to 4 P. M.; Saturdays, 8 A. M. to 12 M.
Office, Brattle Square Building. Telephone 509-2.

CITY PHYSICIAN.

William G. Brousseau.
Residence, 2222 Massachusetts Avenue. Telephone 1285.
Office, Central Square Building.
Office Hours: Daily, 9 to 11 A. M. Telephone 660.

FENCE VIEWERS.

Lewis M. Hastings	City Hall.
Jeremiah F. Downey	City Hall.

Telephones 471, 125.

PLAYGROUND COMMISSION.

John T. Shea	*Chairman.*
Daniel A. Buckley	*Secretary.*
Thomas F. Riley	Term expires 1912.
James B. Vallely	Term expires 1913.
Daniel A. Buckley	Term expires 1913.
John T. Shea	Term expires 1914.
Joseph H. Beale, Jr.	Term expires 1914.

CAMBRIDGE INDUSTRIAL COMMISSION.

Emery H. Masters	*Chairman.*
Joseph M. Dolan	*Secretary.*

James J. Scully from Board of Trade.
Emery H. Masters from Taxpayers' Association.
Arthur R. Henderson from Harvard Square B. M. Association.
Michael D. Collins from Central Labor Union.

At Large.

Forris W. Norris.
Joseph M. Dolan.
Thomas E. Williams.

SCHOOL COMMITTEE.

JOSEPH H. BEALE, JR. . . . . *Chairman.*

At Large.

Joseph H. Beale, Jr., 29 Chauncy Street. Term expires 1912.
James B. Vallely, 9½ Roseland Street. Term expires 1914.

District No. 1.

Frederick A. McMenimen, 100 Winter Street Term expires 1912.

District No. 2.

Charles A. Reynolds, 229 Franklin Street. Term expires 1914.

District No. 3.

Florence Lee Whitman, 23 Everett Street. Term expires 1913.

Secretary and School Supply Agent.

SANFORD B. HUBBARD.

Superintendent of Schools.

FRANK E. PARLIN.

Office Hours: 8.30 A. M. to 5 P. M.

Office, Rooms 13, 14 and 15, City Hall. Telephone 445.

CEMETERY DEPARTMENT—CEMETERY COMMISSIONERS.

GEORGE T. QUINN . . . . . *Chairman.*

Term, Three Years.

John S. Sheridan . . . . . Term expires 1912.
George T. Quinn . . . . . Term expires 1912.
Jeremiah F. Sullivan . . . . . Term expires 1913.
David Fudge . . . . . Term expires 1913.
William A. Bertsch . . . . . Term expires 1914.
Eben H. Googins . . . . . Term expires 1914.
EDWARD J. BRANDON . . . . . *Clerk of the Board.*

Office, Rooms 8 and 9, City Hall. Telephone 419.

JOSEPH A. WOLCOTT . . . . . *Supt. of the Cemetery.*

JOHN J. MCKENZIE . . . . . *Clerk of the Cemetery.*

Office Hours: at Cemetery, 8 A. M to 5 P. M.

Office at Cemetery on Coolidge Avenue. Telephone 5.

PERSON TO CAUSE TO BE PROPERLY INTERRED THE BODIES OF SOLDIERS AND SAILORS.

EBEN W. PIKE.
Office, Room 16, City Hall. Telephone 818.

PUBLIC LIBRARY DEPARTMENT—TRUSTEES OF CAMBRIDGE PUBLIC LIBRARY.

EDWARD C. WHEELER . . . . . *President.*

For One year.
Frederick A. McMenimen, Jr., of School Committee.

Citizens at Large. Term, Three years.

Thomas N. Carver	Term expires 1912.
Edward P. Collier	Term expires 1912.
Joseph L. P. St. Coeur	Term expires 1913.
Edward C. Wheeler	Term expires 1913.
Joseph P. Quilty	Term expires 1914.
John F. Walsh	Term expires 1914.
JOHN F. WALSH	*Treasurer.*
CLARENCE W. AYER	*Secretary and Librarian.*

Library Open: 10 A. M. to 8 P. M.
Reading Room: 10 A. M. to 10 P. M.
Sunday, 2 to 10 P. M.
Office at Library Building, Broadway, Irving and Trowbridge Streets.
Telephone 610.

WATER WORKS DEPARTMENT—CAMBRIDGE WATER BOARD.

ANDREW J. RADY . . . . . *President.*

Term, Five years.

James J. Scully	Term expires 1911.
Andrew J. Rady	Term expires 1912.
John F. O'Brien	Term expires 1913.
Joseph E. Doherty	Term expires 1914.
Bernard E. McDermott	Term expires 1915.
WALTER H. HARDING	*Clerk of the Board.*
EDWIN C. BROOKS	*Supt. of Water Works.*
WALTER H. HARDING	*Water Registrar.*

Office Hours: 8 A. M. to 4 P. M.
Office, Rooms 5 and 6, City Hall. Telephone 430.

REGISTRARS OF VOTERS.

JOHN P. MCCORMICK	*Chairman.*

Term, Four years.

John P. McCormick	Term expires 1912.
Albert H. Hall	Term expires 1913.
J. Frank Facey	Term expires 1914.
Charles B. Seagrave	Term expires 1915.
ALBERT H. HALL	*Clerk.*

Office at Central Square Building. Telephone 1027-3.

PARK DEPARTMENT—PARK COMMISSIONERS.

WILLIAM M. WADDEN	*President.*

Term, Three years.

William M. Wadden	Term expires 1911.
David J. Nelligan	Term expires 1912.
Peter Mullin	Term expires 1913.
ROSE E. MANNING	*Secretary.*
JOHN F. DONNELLY	*General Superintendent.*

Office Hours : 8 A. M. to 4 P. M.

Office, Room 11, City Hall. Telephone 650.

SINKING FUND DEPARTMENT—COMMISSIONERS OF THE SINKING FUND.

FRANK A. ALLEN	*Chairman.*

Term, Three Years.

James O'Brien	Term expires 1912.
George G. Wright	Term expires 1912.
Frank A. Allen	Term expires 1913.
Thomas F. Royle	Term expires 1913.
Edward N. Manning	Term expires 1914.
Herbert M. Bridey	Term expires 1914.
JOHN MCDUFFIE	*Secretary.*
TIMOTHY W. GOOD	*Treasurer.*

OVERSEERS OF THE POOR DEPARTMENT—OVERSEERS OF THE POOR.

JOHN R. MCCOOL . . . . . *Chairman.*

Term, Five years.

Patrick J. Callaghan	Term expires 1912.
James F. Mullen	Term expires 1913.
George P. O'Brien	Term expires 1914.
John R. McCool	Term expires 1915.
Frank McLaughlin	Term expires 1916.
JAMES E. FINNEGAN	*Secretary.*
CHARLES E. GOODROW	*Supt. of City Home.*

Office Hours, at Central Square Building, 8 A. M. to 4 P. M.

Telephones: Office 660, City Home 189.

BOARD OF APPEAL.

CLARENCE H. BLACKALL . . . . *Chairman.*

Term, Three years.

Clarence H. Blackall (Architect) . .	Term expires 1910.
John B. Byrne (Master Builder) . .	Term expires 1911.
Harry N. Stearns	Term expires 1912.
WILLIAM H. SHERIDAN	*Secretary.*

Office, Room 28, City Hall. Telephone 125.

AGENT FOR COMMITTEE ON SOLDIERS' AID.

EBEN W. PIKE.

Office Hours: 8 A. M. to 4 P. M.

Office, Room 16, City Hall. Telephone 818.

TRUSTEES OF THE DOWSE INSTITUTE.

FRANK A. ALLEN . . . . . *President.*

J. Edward Barry, Mayor . . . . *Ex-officio,*

Frederick H. Burke, Pres. of Common Council *Ex-officio,*

George Howland Cox. Willard A. Bullard.

Frank A. Allen.

GEORGE HOWLAND COX . . . . *Secretary.*

TRUSTEES OF THE SANDERS TEMPERANCE FUND AND BRIDGE CHARITABLE FUND.

J. Edward Barry, Mayor,
James T. Barrett, President Board of Aldermen,
Frederick H. Burke, President of Common Council, *ex-officiis*.

PERSON TO RECEIVE INFORMATION OF DAMAGE BY DOGS.
(Ch. 102, Sect. 151, Revised Laws.)
FREDERICK B. PULLEN.

CONSTABLES.

(Without power to serve civil process.)

Charles R. Apted,
Fred Bailey,
William Barber,
George J. Blaisdell,
Edward Brady,
David D. Burns,
Lucian S. Cabot,
Patrick Carroll,
John J. Creedon,
Charles H. Dolloff,
Fred. L. Donovan,
William F. Donovan,
Eugene M. Flanagan,
Charles E. Getchell,
John Good,
Charles E. Goodrow,
Frank A. Hagar,
Joseph B. Hayes,
John Hayman.
Fred M. Harrington,
James Hicks,
Thomas A. Hughes,
Joseph James,
John A. Jackson,
Hugh H. Keenan,
Dennis F. Kelly,
Bernard E. Levin,
Charles A. Lincoln,
Peter Malone,
Felix C. McBride,
John McDonald,
Francis A. McLaughlin,
William R. Mitchell,
Emery T. Morris,
David J. Nelligan,
Michael C. Normile,
John O'Connor,
William H. Porter,
Walter L. Potter,
Burrill Ridley,
Thomas F. Riley,
John J. Roach,
George W. Stanton,
William J. Sullivan,
John Taylor,
John M. Techa,
George E. Verrill,
Frank H. Wait.

CONSTABLES.

(With power to serve civil process.)

Bernard J. Brogan,
Thomas J. Cavanagh,
William J. Connors, Jr.,
John J. Corkery,
Gilmore B. Creelman,
Cornelius T. Curtin,
Edward D. Daly,
Frederick L. Donovan,
Daniel J. Doyle,
John Foster,
Joseph Fox,
Albert Gertson,
James R. Keough,
James E. Lennon,
William F. McCormick,
Andrew H. McKee,
Walter L. Potter,
John E. Quin,
Daniel E. Randall, Jr.,
Arthur M. Stewart.
Harry E. Zintz.

POUND KEEPERS.

Robert Holden,
Edward F. Sullivan.
T. Parker Clark.

COMMITTEE FOR THE PRESERVATION OF FISH.

Theodore L. Pike,
Edwin C. Brooks.

INSPECTORS OF JUNK SHOPS,

Pawnbrokers' Shops and Second-Hand Stores and Dealers.

John J. McBride,
James E. Murray,
John F. Murray,
Patrick J. Hurley.

HAY WEIGHERS.

Frank W. Bartlett,
William N. Neally,
George M. David,
John N. Bolster.

INSPECTOR OF PRESSED OR BUNDLED HAY OR STRAW.

Harvey O. Titus,
Leonard Day.

PUBLIC WEIGHERS.

Francis E. Bailey,
Robert C. Bird,
Ernest E. Bradbury,
William A. Cheyne,
Theodore P. Clark,
Dennis T. Coffey,
Ernest Croake,
Clyde E. Crozier,
Edward B. Dale,
William H. Delaney,
John E. Fay,
Frank Finnick,
Alexander S. Ford,
John P. Healy,
Robert Holden,
John H. Holt,
James Knowles,
Neil Macdonald,
Fred W. MacFarland,
Melvin MacFarland,
Edward A. Mahoney,
William Maloney,
Martin McMahon,
August Pawlowski,
John F. Riley,
Manuel M. Rogers,
Alexander Russell,
Mathieson L. Scorgie,
Edward F. Sullivan,
John M. Thayer,
James J. Travers,
William Varney,
Orne Vose,
James A. Whelan.

MEASURERS OF GRAIN.

(One or more.)

Emery T. Morris.

SURVEYOR OF MECHANICS' WORK.

Charles A. Mason.

KEEPER OF LOCK-UPS.

Frederick B. Pullen.

VOTES CAST AT

STATE AND CITY ELECTIONS

HELD

NOVEMBER 8, 1910 and MARCH 14, 1911

RESPECTIVELY

AS CORRECTED BY RECOUNTS

VOTES CAST FOR GOVERNOR AND OTHER STATE OFFICERS, CONGRESSMAN, COUNCILLORS, SENATORS, REPRESENTATIVES IN THE GENERAL COURT, COUNTY COMMISSIONERS, ASSOCIATE COMMISSIONERS, DISTRICT ATTORNEY, SHERIFF, AND ON THE QUESTION OF DIRECT NOMINATIONS; ALSO FOR CITY OFFICERS, AND ON LICENSE QUESTION.

STATE ELECTION, NOVEMBER 8, 1910

Ward	Precinct	CANDIDATES FOR GOVERNOR									FOR LIEUT.-GOVERNOR						FOR SECRETARY					
		Whole Number	Eben S. Draper of Hopedale Rep.	Eugene N. Foss of Boston Dem.	Eugene N. Foss of Boston Dem. Prog.	Eugene N. Foss of Boston	John A. Nicholls of Boston Pro.	Moritz E. Ruther of Holyoke Soc. L.	Daniel A. White of Brockton Soc.	Blank	Thomas F. Cassidy of Adams Dem. Ind.	Louis A. Frothingham of Boston Rep.	Henry C. Hess of Boston Soc. L.	Patrick Mahoney of Cambridge Soc.	William G. Merrill of Malden Pro.	Blank	Harriet D'Orsay of Lynn Soc.	Charles J. Martell of Boston Dem.	Andrew Mortenson of Somerville Soc. L.	William M. Olin of Boston Rep.	William E. Thomas of Boston Pro.	Blank
1	1	315	26	255	18	9	....	....	4	3	252	30	1	4	....	28	4	251	21	6	....	33
1	2	312	49	224	13	13	....	1	3	7	225	54	1	7	1	24	9	222	5	50	....	26
	Totals	627	75	479	31	22	0	1	9	10	477	84	2	11	1	52	13	473	26	56	....	59
2	1	350	38	282	13	9	0	2	1	5	279	39	3	2	1	26	7	276	3	37	1	26
2	2	293	23	240	16	3	....	....	2	9	237	24	2	3	1	26	2	235	4	21	1	30
	Totals	643	61	522	29	12	0	2	3	14	516	63	5	5	2	52	9	511	7	58	2	56
3	1	268	21	215	14	8	1	0	4	5	220	21	0	8	2	17	7	214	2	16	2	27
3	2	244	15	206	10	6	0	0	1	6	200	16	2	4	2	20	2	201	3	16	0	22
3	3	306	45	217	20	10	0	0	9	5	236	53	1	7	0	9	7	231	5	47	0	16
3	4	274	46	202	11	5	....	1	3	6	200	49	2	6	0	17	6	202	2	49	1	14
	Totals	1092	127	840	55	29	1	1	17	22	856	139	5	25	4	63	22	848	12	128	3	79
4	1	207	37	139	4	13	....	3	3	8	135	39	2	7	....	24	5	145	2	37	....	18
4	2	250	87	132	10	5	2	0	10	4	126	97	3	9	2	13	11	128	3	90	4	14
4	3	266	82	146	12	10	3	1	5	7	142	100	1	4	1	18	8	125	5	103	2	23
4	4	305	126	144	16	5	3	0	6	5	146	134	4	6	3	12	8	133	3	137	5	19
	Totals	1028	332	561	42	33	8	4	24	24	549	370	10	26	6	67	32	531	13	367	11	74
5	1	323	78	218	9	8	2	....	3	5	218	81	2	4	2	16	5	214	2	75	2	25
5	2	362	124	207	6	11	1	0	5	8	213	132	....	4	2	11	5	199	2	131	2	23
5	3	386	239	130	1	5	2	1	4	4	117	258	1	2	1	7	3	104	3	258	3	15
5	4	349	241	86	10	2	2	0	2	6	75	258	0	3	2	11	5	66	0	261	6	11
	Totals	1420	682	641	26	26	7	1	14	23	623	729	3	13	7	45	18	583	7	725	13	74

6.....	1.....	280	121	122	6	5	3	4	8	11	119	128	5	10	2	16	11	110	6	129	2	22
6.....	2.....	399	174	131	13	4	4	1	10	2	119	191	2	12	5	10	10	114	5	189	3	18
6.....	3.....	389	157	194	17	4	1	0	5	11	192	168	1	4	5	19	4	186	1	174	3	21
6.....	4.....	390	232	118	14	6	8	1	6	5	105	256	1	7	10	11	9	96	3	259	10	13
	Totals.....	1398	684	565	50	19	16	6	29	29	535	743	9	33	22	56	34	506	15	751	18	74
7.....	1.....	356	150	173	8	8	3	....	8	6	166	160	2	9	3	16	8	157	1	165	2	23
7.....	2.....	331	90	202	11	11	4	1	5	7	187	109	2	5	5	23	5	186	1	97	4	38
7.....	3.....	403	240	131	14	2	4	....	5	7	117	263	1	4	7	11	5	102	....	271	9	16
7.....	4.....	312	142	142	10	5	2	1	8	2	130	148	5	3	6	20	3	117	3	151	3	35
	Totals.....	1402	622	648	43	26	13	2	26	22	600	680	10	21	21	70	21	562	5	684	18	112
8.....	1.....	347	179	151	4	2	1	5	0	5	130	192	2	6	4	13	7	123	0	195	5	17
8.....	2.....	401	249	130	11	3	1	0	3	4	128	255	2	4	2	10	2	116	2	263	1	17
8.....	3.....	404	60	295	18	16	....	1	5	9	292	65	1	4	....	42	8	287	1	68	1	39
	Totals.....	1152	488	576	33	21	2	6	8	18	550	512	5	14	6	65	17	526	3	526	7	73
9.....	1.....	443	283	134	8	3	1	1	6	7	129	298	1	5	1	9	6	120	2	298	4	13
9.....	2.....	424	206	183	9	5	2	0	8	11	173	225	0	7	3	16	8	173	1	224	2	16
9.....	3.....	418	158	202	23	11	2	4	4	14	214	168	4	2	2	28	6	210	1	175	4	22
	Totals.....	1285	647	519	40	19	5	5	18	32	516	691	5	14	6	53	20	503	4	697	10	51
10.....	1.....	413	272	119	11	2	3	....	5	1	119	278	2	6	3	5	8	101	1	292	6	5
10.....	2.....	371	247	104	3	2	1	4	4	6	96	250	7	3	3	12	4	84	7	264	1	11
10.....	3.....	293	50	212	19	5	1	....	2	4	205	49	1	4	3	31	7	212	....	53	....	21
	Totals.....	1077	569	435	33	9	5	4	11	11	420	577	10	13	9	48	19	397	8	609	7	37
11.....	1.....	457	224	205	12	9	....	....	6	1	177	249	2	6	4	19	8	167	4	255	2	21
11.....	2.....	457	126	294	16	8	1	1	4	7	285	149	2	5	....	16	8	276	31	118	1	23
11.....	3.....	358	35	282	18	11	0	0	7	5	281	38	3	9	1	26	9	291	1	31	3	23
	Totals.....	1272	385	781	46	28	1	1	17	13	743	436	7	20	5	61	25	734	36	404	6	67
	Grand Totals...	12,396	4672	6567	428	244	58	33	176	218	6385	5024	71	195	89	632	230	6174	136	5005	95	756

Ward	Precinct	FOR TREASURER						FOR AUDITOR						ATTORNEY-GENERAL					CONGRESSMAN		
		Carl Fredrikson of Worcester Soc. L.	Thomas A. Frissell of Hinsdale Pro.	Sylvester J. McBride of Watertown Soc.	Benjamin F. Peach of Lynn Dem.	Elmer A. Stevens of Somerville Rep.	Blank	John Holt of Worcester Pro.	Jeremiah P. McNally of Salem Soc. L.	Ambrose Miles of Lynn Soc.	Charles C. Paine of Barnstable Dem.	Henry E. Turner of Malden Rep.	Blank	Dennis McGoff of New Bedford Soc. L.	Harold Metcalf of New Bedford Soc.	John B. Ratigan of Worcester Dem.	James M. Swift of Fall River Rep.	Blank	Frederick S. Deitrick of Cambridge Dem.	Samuel W. McCall of Winchester Rep.	Blank
1	1	3	...	3	254	25	30	1	...	4	254	24	32	2	3	253	26	31	269	29	17
1	2	3	2	12	221	47	27	...	3	6	222	45	36	2	7	218	47	38	230	58	24
	Totals	6	2	15	475	72	57	1	3	10	476	69	68	4	10	471	73	69	499	87	41
2	1	2	2	4	273	41	28	0	4	5	270	38	33	3	3	273	37	34	290	39	21
2	2	1	0	3	234	23	32	...	...	...	236	22	35	0	2	234	26	31	239	33	21
	Totals	3	2	7	507	64	60	0	4	5	506	60	68	3	5	507	63	65	529	72	42
3	1	4	1	9	211	14	29	1	1	7	215	16	28	2	6	217	14	29	224	21	23
3	2	2	1	4	204	15	18	0	2	3	204	16	19	3	4	201	15	21	211	22	11
3	3	1	1	10	228	44	22	0	2	9	226	43	26	3	16	227	39	27	237	51	18
3	4	4	1	4	196	52	17	2	1	6	192	52	21	2	5	196	53	18	206	53	15
	Totals	11	4	27	839	125	86	3	6	25	837	127	94	10	25	841	121	95	878	147	67
4	1	3	...	4	141	36	21	...	4	2	139	35	27	2	5	137	36	27	149	37	21
4	2	3	2	13	120	33	17	3	1	13	124	39	20	3	12	123	94	18	132	103	15
4	3	2	2	8	124	37	28	3	2	8	121	34	37	5	5	123	99	34	139	101	26
4	4	2	5	9	133	133	23	3	1	7	133	131	30	0	7	138	130	30	143	147	15
	Totals	19	9	34	518	359	89	9	9	30	517	349	114	10	29	521	359	109	563	388	77
5	1	3	3	4	214	73	26	2	3	3	210	71	34	1	8	210	73	31	221	81	21
5	2	2	2	8	196	119	35	1	3	5	202	118	33	2	5	198	122	35	199	140	23
5	3	2	2	4	106	253	18	3	2	1	108	248	24	1	3	105	250	27	120	252	14
5	4	0	6	6	66	260	11	4	0	4	68	253	20	0	5	60	267	17	85	255	9
	Totals	8	13	22	582	705	90	10	8	13	588	690	111	4	21	573	712	110	625	728	67

6.....	1.....	5	3	8	105	134	25	3	5	10	104	122	36	5	9	105	123	38	118	131	31
6.....	2.....	6	3	11	118	183	18	4	4	11	112	185	23	4	12	112	187	24	128	191	20
6.....	3.....	2	3	7	179	170	28	4	1	6	180	161	37	1	3	181	172	32	183	178	28
6.....	4.....	3	10	10	89	263	15	10	1	9	98	255	17	4	7	89	270	20	105	272	13
	Totals.....	16	19	36	491	750	86	21	11	36	491	723	113	14	31	487	752	114	534	772	92
7.....	1.....	1	....	11	156	164	24	1	1	9	153	161	31	3	11	157	158	27	171	165	20
7.....	2.....	3	2	6	183	99	38	3	4	4	182	99	39	5	5	182	101	38	189	109	33
7.....	3.....	1	9	8	102	268	15	8	....	5	99	268	23	.....	9	102	271	21	113	275	15
7.....	4.....	4	4	4	122	150	28	4	4	2	121	146	35	1	4	118	151	38	130	159	23
	Totals.....	9	15	29	563	681	105	16	9	20	555	674	128	9	29	559	681	124	603	708	91
8.....	1.....	1	3	8	124	193	18	4	1	7	125	189	21	.....	10	126	189	22	149	184	14
8.....	2.....	2	4	2	118	257	18	1	1	4	113	257	25	1	4	116	263	17	140	244	17
8.....	3.....	1	1	7	286	70	39	2	2	6	286	62	46	2	5	289	70	38	305	72	27
	Totals.....	4	8	17	528	520	75	7	4	17	524	508	92	3	19	531	522	77	594	500	58
9.....	1.....	2	2	6	124	295	14	3	2	6	128	291	13	2	8	119	302	12	165	265	13
9.....	2.....	1	1	8	176	221	17	2	0	7	183	214	18	0	8	180	216	20	192	212	20
9.....	3.....	5	3	6	212	168	24	2	2	4	213	160	37	4	5	201	172	36	230	166	22
	Totals.....	8	6	20	512	684	55	7	4	17	524	665	68	6	21	500	690	68	587	643	55
10.....	1.....	.....	2	6	108	286	11	4	1	6	103	285	14	2	9	102	288	12	135	267	11
10.....	2.....	5	1	3	84	265	13	4	8	4	87	249	19	6	44	48	256	17	108	248	15
10.....	3.....	3	1	4	209	51	25	2	3	2	202	53	31	2	3	200	52	36	225	51	17
	Totals.....	8	4	13	401	602	49	10	12	12	392	587	64	10	56	350	596	65	468	566	43
11.....	1.....	2	3	6	169	254	23	.....	2	7	167	251	30	1	8	166	259	23	209	237	11
11.....	2.....	6	....	6	275	146	24	1	5	4	271	144	32	4	12	271	145	25	290	144	23
11.....	3.....	2	0	6	276	37	37	2	5	5	280	37	29	3	9	275	38	33	304	39	15
	Totals.....	10	3	18	720	437	84	3	12	16	718	432	91	8	29	712	442	81	803	420	49
	Grand Totals....	102	85	238	6136	4999	836	87	82	201	6131	4884	1011	81	275	6052	5011	977	6683	5031	682

STATE ELECTION, NOVEMBER 8, 1910—Continued

Ward	Precinct	COUNCILLOR Third District			COUNCILLOR Fourth District			SENATOR Second Suffolk			SENATOR Third Suffolk				SENATOR Second Middlesex		
		John Quinn, Jr., of Boston Dem.	Simon C. Weil of Boston Rep.	Blank	Walter S. Glidden of Somerville Rep.	George T. Rendle of Boston Dem.	Blank	James A. Hatton of Boston Dem.	Henry C. Weeks of Boston Rep.	Blank	Giovannie C. Crisofi of Boston Rep.	Michael De Cisso of Boston Dem. Cit.	Joseph P. Lomasney of Boston Dem.	Blank	George J. Raymond of Cambridge Ind. Dem.	Harry N. Stearns of Cambridge Rep.	Blank
1	1	268	20	27				258	22	35							
1	2	240	49	23				236	44	32							
	Totals	508	69	50				494	66	67							
2	1	281	36	33				277	41	32							
2	2	250	22	21				224	25	44							
	Totals	531	58	54				501	66	76							
3	1	223	16	29				226	13	29							
3	2	206	17	21				203	16	25							
3	3	239	45	22				230	45	31							
3	4	205	48	21				200	53	21							
	Totals	873	126	93				859	127	106							
4	1	144	39	24							35	8	131	33			
4	2	128	97	25							84	12	122	32			
4	3	139	95	32							93	9	123	41			
4	4	146	124	35							128	9	128	40			
	Totals	557	355	116							340	38	504	146			
5	1				76	211	36								170	116	37
5	2				124	195	43								172	161	29
5	3				247	106	33								105	266	15
5	4				254	66	29								83	257	9
	Totals				701	578	141								530	800	90

6.....	1.....				132	114	34							96	163	21
6.....	2.....				186	120	33							134	192	13
6.....	3.....				168	182	39							170	196	23
6.....	4.....				274	89	27							110	267	13
	Totals.....				760	505	133							510	818	70
7.....	1.....				152	166	38							171	164	21
7.....	2.....				103	183	45							172	130	29
7.....	3.....				269	104	30							130	253	20
7.....	4.....				156	113	43							128	161	23
	Totals.....				680	566	156							601	708	93
8.....	1.....				193	126	28							139	190	18
8.....	2.....				253	119	29							113	274	14
8.....	3.....				78	276	50							249	121	34
	Totals.....				524	521	107							501	585	66
9.....	1.....				276	128	39							125	311	7
9.....	2.....				203	187	34							174	226	24
9.....	3.....				167	203	48							179	211	28
	Totals.....				646	518	121							478	748	59
10.....	1.....				282	109	22							118	286	9
10.....	2.....				254	94	23							104	256	11
10.....	3.....				56	204	33							154	116	23
	Totals.....				592	407	78							376	658	43
11.....	1.....				251	170	36							212	238	7
11.....	2.....				145	265	47							249	192	16
11.....	3.....				40	275	43							266	78	14
	Totals.....				436	710	126							727	508	37
Grand Totals...		2469	608	313	4339	3805	862	1854	259	249	340	38	504	146	3723	4825	458

Ward	Precinct	First Middlesex District				Second Middlesex District								Third Middlesex District					
		Joseph J. Reed of Cambridge Dem.	Thomas Ryan of Cambridge Dem.	Joseph A. Sullivan of Cambridge Dem. Ind.	Blank	James W. Bean of Cambridge Rep.	Herman Bird of Cambridge Ind.	James J. Casey of Cambridge Dem.	Henry J. Mahoney of Cambridge Dem.	Robert H. O'Neil of Cambridge Dem.	Harry A. Penniman of Cambridge Rep.	Charles J. Wood of Cambridge Rep.	Blank	Russell D. Crane of Cambridge Rep.	George L. Dow of Cambridge Rep.	Edward Ferguson of Cambridge Dem.	Michael M. O'Connor of Cambridge Dem.	Russell A. Wood of Cambridge Rep.	Blank
1	1	196	140	148	143														
1	2	225	151	78	170														
	Totals	421	291	226	316														
2	1	274	226	78	122														
2	2	214	180	59	133														
	Totals	488	406	137	255														
3	1	210	167	58	101														
3	2	195	134	61	98														
3	3	248	190	50	124														
3	4	201	162	45	140														
	Totals	854	653	214	463														
4	1					34	13	131	127	129	34	33	120						
4	2					98	21	118	114	119	99	97	84						
4	3					105	25	127	115	122	97	99	108						
4	4					140	32	123	115	140	110	125	130						
	Totals					377	91	499	471	510	340	354	442						
5	1					84	21	193	191	184	66	78	152						
5	2					137	29	192	177	178	120	122	131						
5	3					256	34	105	108	96	231	235	93						
5	4					260	52	63	58	60	237	251	66						
	Totals					737	136	553	534	518	654	686	442						

6.....	1.....					134	18	108	93	101	131	129	126						
6.....	2.....					190	40	99	99	91	200	187	111						
6.....	3.....					171	47	170	155	147	165	169	143						
6.....	4.....					265	56	90	80	73	260	266	80						
	Totals.....					760	161	467	427	412	756	751	460						
7.....	1.....					158	42	157	152	145	155	158	101						
7.....	2.....					115	15	169	166	165	109	119	135						
7.....	3.....					260	50	86	78	74	262	290	109						
7.....	4.....					156	30	110	93	90	137	179	141						
	Totals.....					689	137	522	489	474	663	746	486						
8.....	1.....													184	189	130	131	208	197
8.....	2.....													256	262	113	108	279	185
8.....	3.....													97	84	261	256	122	392
	Totals.....													537	535	504	495	609	774
9.....	1.....													304	294	129	108	187	252
9.....	2.....													216	203	185	187	228	252
9.....	3.....													174	159	243	167	172	339
	Totals.....													694	656	557	462	714	771
10.....	1.....													280	278	124	107	289	161
10.....	2.....													260	252	102	79	256	164
10.....	3.....													64	58	190	185	98	284
	Totals.....													604	588	416	371	643	609
11.....	1.....													253	236	163	161	279	279
11.....	2.....													155	153	245	272	215	331
11.....	3.....													50	41	262	275	107	339
	Totals.....													458	430	670	708	601	949
Grand	Totals.....	1763	1350	577	1034	2563	525	2041	1921	1914	2413	2537	1830	2293	2209	2147	2036	2567	3103

Ward	Precinct	COUNTY COMMISSIONER (Full Term)			COUNTY COMMISSIONER (Vacancy)			ASSOCIATE COMMISSIONERS					DISTRICT ATTORNEY			SHERIFF			QUESTIONS OF DIRECT NOMINATIONS		
		Charles H. Richardson of Lowell Rep.	Dexter C. Whitmore of Carlisle Dem.	Blank	Winthrop H. Fairbanks of Sudbury Dem.	Chester B. Williams of Wayland Rep.	Blank	Leander V. Colahan of Stoneham Dem.	Joseph L. Marin of Lowell Dem.	Frank A. Patch of Littleton Rep.	Edward E. Thompson of Woburn Rep.	Blank	John J. Higgins of Somerville Rep.	James J. Irwin of Everett Dem.	Blank	John R. Fairbairn of Cambridge Rep.	Whitfield L. Tuck of Winchester Dem.	Blank	YES	NO	Blank
1	1	33	235	47	241	28	46	230	216	24	20	140	71	217	27	97	187	31			
1	2	53	207	52	217	49	46	214	191	40	40	139	89	196	27	100	186	26			
	Totals	86	442	99	458	77	92	444	407	64	60	279	160	413	54	197	373	57			
2	1	42	260	48	256	41	53	250	226	30	36	158	74	240	36	89	222	39			
2	2	30	213	50	221	22	50	205	202	16	20	143	45	212	36	68	195	30			
	Totals	72	473	98	477	63	103	455	428	46	56	301	119	452	72	157	417	69			
3	1	19	202	47	206	18	44	203	187	10	11	125	38	201	29	43	195	30			
3	2	18	190	36	190	17	37	181	174	11	14	108	35	184	25	46	172	26			
3	3	46	218	42	223	43	40	213	200	38	39	122	67	206	33	79	197	30			
3	4	55	191	28	188	53	33	182	172	42	47	105	62	183	29	75	171	28			
	Totals	138	801	153	807	131	154	779	733	101	111	460	202	774	116	243	735	113			
4	1	38	133	36	132	37	38	125	125	34	33	97	42	134	31	48	127	32			
4	2	102	119	29	121	97	32	115	112	88	83	102	110	114	26	116	113	21			
4	3	100	131	35	130	99	37	122	122	91	94	103	115	123	28	117	119	30			
4	4	134	133	38	138	125	42	129	119	120	127	115	150	127	28	158	125	22			
	Totals	374	516	138	521	358	149	491	478	333	337	417	417	498	113	439	484	105			
5	1	72	202	49	210	72	41	198	198	64	66	120	98	193	32	106	184	33	208	25	90
5	2	119	198	45	163	156	43	181	180	106	118	139	149	183	30	156	175	31	243	36	83
5	3	243	111	32	115	237	34	105	106	227	237	97	255	106	25	271	96	19	253	43	90
5	4	245	70	34	75	236	38	64	68	231	242	93	265	65	19	273	60	16	233	43	73
	Totals	679	581	160	563	701	156	548	552	628	663	449	767	547	106	806	515	99	937	147	336

6.....	1.....	129	107	44	106	127	47	103	96	123	125	113	146	105	29	148	94	38	155	27	98
6.....	2.....	186	107	46	107	183	49	97	103	168	182	128	196	109	34	212	95	32	209	39	91
6.....	3.....	163	175	51	177	161	51	157	156	154	159	152	182	162	45	192	157	40	231	41	117
6.....	4.....	263	94	33	102	253	35	91	84	250	261	94	271	99	20	283	90	17	234	60	96
	Totals.....	741	483	174	492	724	182	448	439	695	727	487	795	475	128	835	436	127	829	167	402
7.....	1.....	159	156	41	206	107	43	148	139	157	160	108	172	154	30	176	148	32	243	32	81
7.....	2.....	106	178	47	179	106	46	171	165	98	97	131	114	183	34	127	162	42	181	31	119
7.....	3.....	269	99	35	98	264	41	88	89	252	254	123	282	95	26	291	82	30	234	65	104
7.....	4.....	145	120	47	121	142	49	106	103	131	146	138	159	122	31	172	107	33	190	39	83
	Totals.....	679	553	170	604	619	179	513	496	638	657	500	727	554	121	766	499	137	848	167	387
8.....	1.....	187	130	30	132	181	34	118	119	180	183	94	202	125	20	202	119	26	252	33	62
8.....	2.....	256	113	32	114	246	41	104	100	247	251	100	266	113	22	267	106	28	275	47	79
8.....	3.....	77	274	53	275	71	58	260	254	64	68	162	83	280	41	85	269	50	251	34	119
	Totals.....	520	517	115	521	498	133	482	473	491	502	356	551	518	83	554	494	104	778	114	260
9.....	1.....	276	133	34	133	269	41	116	105	263	272	130	290	128	25	301	113	29	297	56	90
9.....	2.....	231	154	39	183	195	46	174	167	188	190	129	209	181	34	216	172	36	258	62	104
9.....	3.....	169	211	38	221	159	38	198	197	155	161	125	176	209	33	183	202	33	247	50	121
	Totals.....	676	498	111	537	623	125	488	469	606	623	384	675	518	92	700	487	98	802	168	315
10.....	1.....	278	114	21	117	269	27	102	106	258	263	97	296	101	16	290	106	17	294	39	80
10.....	2.....	245	94	32	93	241	37	75	72	235	243	117	256	90	25	271	78	22	235	52	84
10.....	3.....	54	200	39	199	57	37	189	177	44	49	127	63	204	26	62	200	31	172	9	112
	Totals.....	577	408	92	409	567	101	366	355	537	555	341	615	395	67	623	384	70	701	100	276
11.....	1.....	243	173	41	180	232	45	154	157	232	239	132	264	168	25	268	161	28	310	38	109
11.....	2.....	145	263	49	266	138	53	256	255	126	132	145	169	260	28	169	253	35	310	40	107
11.....	3.....	44	272	42	272	39	47	262	259	31	34	136	61	269	28	59	272	27	215	33	110
	Totals.....	432	708	132	718	409	145	672	671	389	405	407	494	697	81	496	686	90	835	111	326
Grand	Totals.....	4974	5980	1442	6107	4770	1519	5686	5501	4528	4696	4380	5522	5840	1032	5816	5510	1070	5730	974	2302

MUNICIPAL ELECTION, MARCH 14, 1911.

Ward	Precinct	MAYOR: Whole Number of Ballots Cast	MAYOR: J. Edward Barry Dem.	MAYOR: Jeremiah F. Donovan Non-p. M.	MAYOR: Edward B. James Ind. Cit.	MAYOR: Charles H. Lake	MAYOR: Blank	ASSESSOR: Ellery C. Coolidge Non-p. M.	ASSESSOR: Bernard F. Fallon Dem.	ASSESSOR: Blank	LICENSE: Yes	LICENSE: No	LICENSE: Blank	SCHOOL COMMITTEE At Large: Number Ballots Cast for School Committee	SCHOOL COMMITTEE At Large: James B. Vallely Non-p. M.—Dem.	SCHOOL COMMITTEE At Large: Augustine J. Daly	SCHOOL COMMITTEE At Large: Blank	SCHOOL COMMITTEE District 2: H. P. Stevens	SCHOOL COMMITTEE District 2: Charles A. Reynolds Dem.—Non-p. M.	SCHOOL COMMITTEE District 2: Blank
1	1	377	316	50	9	...	2	30	330	17	162	176	39	377	264	...	113	...	.....	....
1	2	351	258	77	14	...	2	67	267	17	145	181	25	351	252	...	99	...	.....	....
	Totals	728	574	127	23	...	4	97	597	34	307	357	64	728	516	...	212	..	.....	....
2	1	409	286	113	9	...	1	61	319	29	159	210	40	409	278	...	131	...	.....	....
2	2	323	222	89	11	...	1	49	256	18	115	191	17	324	218	...	106	...	.....	....
	Totals	732	508	202	20	...	2	110	575	47	274	401	57	733	496	...	237	...	.....	....
3	1	331	233	93	3	...	2	41	273	17	149	142	40	332	230	...	102	...	.....	....
3	2	276	196	76	3	...	1	28	228	20	146	110	20	276	184	...	92	...	.....	....
3	3	359	238	114	4	...	3	67	282	10	152	180	27	359	269	...	90	...	.....	....
3	4	323	217	100	5	...	1	71	238	14	142	148	33	323	233	...	90	...	.....	....
	Totals	1289	884	383	15	...	7	207	1021	61	589	580	120	1290	916	...	374	...	.....	....
4	1	253	168	75	9	...	1	53	186	14	133	86	34	253	169	...	84	...	119	134
4	2	290	122	134	30	...	4	127	155	8	105	162	23	291	221	...	70	...	185	106
4	3	315	107	186	16	...	6	141	161	13	129	160	26	315	218	...	97	...	178	137
4	4	306	134	149	21	...	2	147	150	9	79	212	15	308	246	...	62	...	195	113
	Totals	1164	531	544	76	...	13	468	652	44	446	620	98	1167	854	...	313	...	677	490
5	1	338	197	117	20	...	4	93	232	13	140	179	19	339	254	...	85	...	184	155
5	2	371	209	136	20	...	6	131	221	19	86	258	27	371	281	...	90	...	224	147
5	3	373	111	218	41	...	3	245	123	5	66	292	15	374	309	...	65	...	282	92
5	4	341	45	228	65	...	3	294	40	7	59	272	10	345	279	...	66	...	266	79
	Totals	1423	562	699	146	...	16	763	616	44	351	1001	71	1429	1123	...	306	...	956	473

6.....	1.....	304	114	175	14	...	1	134	164	6	134	135	35	304	212	...	92	...	174	130
6.....	2.....	326	114	176	35	...	1	179	140	7	120	189	17	327	253	...	74	...	248	79
6.....	3.....	390	175	178	31	...	6	154	227	9	147	221	22	390	287	...	103	...	222	168
6.....	4.....	389	86	251	50	...	2	261	117	11	90	286	13	391	311	...	80	...	285	106
	Totals.....	1409	489	780	130	...	10	728	648	33	491	831	87	1412	1063	...	349	...	929	483
7.....	1.....	373	156	183	31	...	3	182	181	10	126	227	20	376	267	...	109	...	242	134
7.....	2.....	366	185	154	16	...	11	120	219	27	170	156	40	366	253	...	113	...	196	170
7.....	3.....	401	77	240	72	...	12	287	109	5	105	270	26	406	319	...	87	...	323	83
7.....	4.....	318	106	192	17	...	3	162	138	18	102	194	22	318	239	...	79	...	213	105
	Totals.....	1458	524	769	136	...	29	751	647	60	503	847	108	1466	1078	...	388	...	974	492
8.....	1.....	313	105	164	44	...	0	188	119	6	73	228	12	317	270	...	47	...	.....	....
8.....	2.....	367	106	190	69	...	2	249	108	10	88	265	14	370	306	...	64	...	.....	....
8.....	3.....	448	331	92	18	...	7	84	348	16	258	153	37	448	291	...	157	...	.....	....
	Totals.....	1128	542	446	131	...	9	521	575	32	419	646	63	1135	867	...	268	...	.....	....
9.....	1.....	389	98	210	77	...	4	285	94	10	103	269	17	398	332	...	65	1	.....	....
9.....	2.....	408	185	184	33	...	6	214	189	5	123	263	22	412	332	...	79	1	.....	....
9.....	3.....	398	195	154	45	...	4	171	214	13	120	246	32	400	321	...	79	...	.....	....
	Totals.....	1195	478	548	155	...	14	670	497	28	346	778	71	1210	985	...	223	2	.....	....
10.....	1.....	344	82	182	74	1	5	248	92	4	54	276	14	349	295	1	53	...	.....	....
10.....	2.....	314	72	159	76	...	7	227	77	10	47	263	4	318	263	...	55	...	.....	....
10.....	3.....	320	238	75	6	...	1	57	247	16	175	123	22	323	240	...	81	2	.....	....
	Totals.....	978	392	416	156	1	13	532	416	30	276	662	40	990	798	1	189	2	.....	....
11.....	1.....	400	131	180	80	...	9	243	138	19	102	278	20	400	304	...	96	...	.....	....
11.....	2.....	439	260	130	40	...	9	127	287	25	173	238	28	439	326	...	113	...	.....	....
11.....	3.....	366	267	89	6	...	4	46	303	17	173	166	27	366	263	...	103	...	.....	....
	Totals.....	1205	658	399	126	...	22	416	728	61	448	682	75	1205	893	...	312	...	.....	....
Grand	Totals.....	12,709	6142	5313	1114	1	139	5263	6972	474	4450	7405	854	12,765	9589	1	3171	4	3536	1938

CANDIDATES FOR ALDERMEN.

	Albert M. Chandler Non-p.—M.	George B. Whitmore Non-p.—M.	Bancroft G. Davis Non-p.—M.	Solomon H. Barnard Non-p.—M.	Harry F. R. Dolan Non-p.—M.	Joseph A. Sullivan Dem.	Robert H. O'Neil Dem.	Peter J. Nelligan Dem.	James T. Barrett Dem.	George Stephens Non-p.—M.	William Danehy Dem.	Michael M. O'Connor Dem.	Arthur F. Blanchard Non-p.—M.	James F. Black Dem.	Lawrence G. Brooks Non-p.—M.	Arthur E. Beane Non-p.—M.	Patrick J. Curley Dem.	Charles H. Millner Non-p.—M.	Dennis J. Callahan Dem.	Henry W. Beal Non-p.—M.	Dennis F. Hurley Dem.	Jeremiah Corkery Dem.	James Walker Beane	Blank
Ward 1																								
Prec. 1.....	30	30	31	35	33	314	301	287	295	29	281	275	33	301	22	25	269	33	269	34	288	285	647	....
Prec. 2.....	62	58	58	66	65	252	230	231	241	50	235	225	50	247	56	42	241	46	233	52	234	222	665	....
Totals...	92	88	89	101	98	566	531	518	536	79	516	500	83	548	78	67	510	79	502	86	522	507	1312	....
Ward 2																								
Prec. 1.....	71	63	62	60	78	280	284	293	295	67	273	286	60	304	59	59	269	71	262	70	283	283	667	....
Prec. 2.....	51	46	43	54	46	228	229	227	234	50	223	212	45	239	35	34	212	51	212	44	229	223	586	....
Totals...	122	109	105	114	124	508	513	520	529	117	496	498	105	543	94	93	481	122	474	114	512	506	1253	....
Ward 3																								
Prec. 1.....	53	46	46	58	48	241	228	238	250	37	233	243	40	247	37	27	223	49	221	35	263	227	551	....
Prec. 2.....	43	44	41	45	48	201	195	193	181	41	197	182	43	216	34	30	185	49	179	44	198	185	464	....
Prec. 3.....	69	67	65	71	67	253	253	235	246	61	249	248	62	267	58	54	241	62	238	62	245	245	531	....
Prec. 4.....	82	82	72	73	80	211	224	219	221	67	221	211	67	226	67	58	202	65	206	72	216	212	397	....
Totals...	247	239	224	249	243	906	900	885	898	206	900	884	212	956	196	169	849	225	844	213	922	869	1943	....
Ward 4																								
Prec. 1.....	58	52	51	55	50	170	171	166	179	47	190	166	45	168	45	45	166	40	167	49	162	161	382	....
Prec. 2.....	126	124	119	124	121	126	135	118	125	115	139	127	121	134	114	121	122	114	120	120	119	126	480	....
Prec. 3.....	146	145	142	153	144	143	141	141	133	139	141	130	144	143	135	138	130	135	128	138	128	138	410	....
Prec. 4.....	156	151	149	157	145	120	156	117	125	144	123	117	145	118	137	136	111	136	115	150	107	133	418	....
Totals...	486	472	461	489	460	559	603	542	562	445	593	540	455	563	431	438	529	425	530	457	516	558	1690	....
Ward 5																								
Prec. 1.....	103	95	97	103	101	185	200	194	199	95	202	201	99	214	89	96	181	101	185	98	180	205	492	....
Prec. 2.....	145	141	141	135	140	190	201	200	196	133	204	205	144	205	128	132	193	122	187	139	189	203	408	....
Prec. 3.....	248	245	245	239	244	103	102	108	105	241	106	107	243	102	240	240	101	218	95	251	93	111	316	....
Prec. 4.....	286	279	279	278	269	38	47	41	46	274	41	36	275	43	276	280	34	245	31	276	35	49	293	....
Totals...	782	760	762	755	754	516	550	546	546	743	553	549	761	564	733	748	509	686	498	764	497	568	1509	....

Ward 6																								
Prec. 1.....	151	154	154	151	154	122	133	121	129	149	128	119	149	128	145	137	120	136	114	146	117	121	366	....
Prec. 2.....	185	193	182	203	176	121	118	117	127	183	119	113	180	125	181	171	110	168	99	177	111	120	307	....
Prec. 3.....	163	177	155	173	166	176	186	176	195	152	189	182	162	198	151	147	177	153	172	155	182	192	511	....
Prec. 4.....	279	282	264	277	269	81	83	83	94	265	90	88	271	96	265	266	79	233	75	270	78	98	393	....
Totals...	778	806	755	804	765	500	520	497	545	749	526	502	762	547	742	721	486	690	460	748	488	531	1577	....
Ward 7																								
Prec. 1.....	177	180	176	182	171	158	159	162	158	176	155	150	172	173	165	174	154	170	148	177	145	170	451	....
Prec. 2.....	122	120	114	121	118	189	195	199	183	112	193	178	112	202	111	115	189	149	173	112	186	221	612	....
Prec. 3.....	285	295	280	288	274	75	84	79	80	279	79	70	281	95	271	268	71	277	65	282	61	106	466	....
Prec. 4.....	169	186	169	176	169	104	112	111	122	161	113	108	166	121	152	154	114	166	102	165	106	130	422	....
Totals...	753	781	739	767	732	526	550	551	542	728	540	506	731	591	699	711	528	762	488	736	498	627	1951	....
Ward 8																								
Prec. 1.....	184	183	182	183	185	105	104	113	113	192	102	105	187	111	188	181	102	169	106	190	105	119	234	....
Prec. 2.....	237	240	232	236	234	92	91	107	98	254	96	90	226	105	235	238	89	208	95	249	89	111	385	....
Prec. 3.....	83	92	87	86	87	320	310	318	306	110	312	302	79	327	80	75	330	85	305	84	305	325	520	....
Totals...	504	515	501	505	506	517	505	538	517	556	510	497	492	543	503	494	521	462	506	523	499	555	1139	....
Ward 9																								
Prec. 1.....	283	279	285	271	273	72	77	85	91	283	71	72	287	80	279	283	79	250	71	287	70	82	369	....
Prec. 2.....	214	213	215	213	211	163	171	178	172	223	169	168	211	181	210	206	190	192	164	210	167	171	276	....
Prec. 3.....	171	177	173	171	180	184	180	191	196	165	193	174	166	189	163	168	212	156	185	174	176	197	437	....
Totals...	668	669	673	655	664	419	428	454	459	671	433	414	664	450	652	657	481	598	420	671	413	450	1082	....
Ward 10																								
Prec. 1.....	254	248	249	249	247	72	70	81	78	252	71	75	246	75	245	252	78	214	86	251	64	83	243	1
Prec. 2.....	227	214	220	214	208	63	60	74	76	220	68	63	222	71	219	235	68	204	68	228	61	67	308	....
Prec. 3.....	60	56	55	63	64	229	223	241	228	66	224	218	63	234	54	56	269	45	212	60	219	232	349	....
Totals...	541	518	524	526	519	364	353	396	382	538	363	356	531	380	518	543	415	463	366	539	344	382	896	1
Ward 11																								
Prec. 1.....	240	234	239	232	233	121	124	151	133	227	130	117	230	123	226	229	137	213	127	236	112	124	462	....
Prec. 2.....	130	129	127	131	121	260	264	300	272	136	265	280	134	261	117	114	276	120	296	122	247	262	465	....
Prec. 3.....	52	48	47	54	53	267	257	301	275	42	276	282	50	277	46	39	290	52	285	46	267	267	453	....
Totals...	422	411	413	417	407	648	645	752	680	405	671	679	414	661	389	382	703	385	708	404	626	653	1380	....
Grand Totals	5395	5368	5246	5382	5272	6029	6098	6199	6197	5237	6101	5925	5210	6346	5035	5023	6012	4897	5796	5255	5837	6206	15,732	1

CANDIDATES FOR COMMON COUNCIL

Ward One

	Charles H. Gaffney, Dem.	Joseph J. McElroy Dem.	William E. Warnick Non-p. M.	Blank
Precinct 1	309	309	43	93
" 2	254	248	82	117
Total	563	558	125	210

Ward Two

	Frederick H. Burke, Dem.	Frank Leo Mallahan, Dem.	Blank
Precinct 1	311	278	229
" 2	245	244	157
Total	556	522	386

Ward Three

	Michael J. Mahoney, Dem.	Frank J. McAvoy, Dem.	Blank
Precinct 1	270	263	129
" 2	223	211	118
" 3	282	298	138
" 4	252	234	160
Total	1,027	1,006	545

Ward Four

	Mark R. Delaney, Dem.	William J. Dunn Non-p. M.	William H. Lee Non-p. M.	Lawrence J. Toomey, Dem.	Blank
Precinct 1	176	42	43	198	47
" 2	139	132	110	147	52
" 3	131	167	113	148	71
" 4	141	159	135	132	45
Total	587	500	401	625	215

CANDIDATES FOR COMMON COUNCIL

Ward Five

	John A. McGee Dem.	Ferris N. Norris Non-p. M.	Ernest A. Thompson Non-p. M.	Blank
Precinct 1	214	108	115	239
" 2	183	150	160	249
" 2	98	257	255	136
" 4	34	276	291	81
Total	529	791	821	705

Ward Six

	Frederick F. Clauss, Non-p.M.	Charles F. Field, Non-p. M.	Blank
Precinct 1	182	175	251
" 2	218	201	233
" 3	227	203	350
" 4	286	308	184
Total	913	887	1,018

Ward Seven

	Charles E. Carruth, 2nd Non-p. M.	Edward F. Murphy, Dem.	James K. Tweedle Non-p. M.	Blank
Precinct 1	201	171	195	179
" 2	132	225	129	246
" 3	311	82	300	109
" 4	209	126	172	129
Total	853	604	796	663

Ward Eight

	Eugene B. Bannan, Dem.	Geo. K. Higgins Non-p. M.	Thomas E. O'Hara, Dem.	Chas. F. Whiting Non-p. M.	Blank
Precinct 1	114	185	109	186	32
" 2	101	237	111	238	47
" 3	357	70	333	68	68
Total	572	492	553	492	147

CANDIDATES FOR COMMON COUNCIL

Ward Nine

	William J. E Sandler Non-p. M.	Roger D. Swaim Non-p. M.	D. J. Henley	Thos. F. Reagan	Blank
Precinct 1	300	310	.....	.....	168
" 2	231	234	1	1	349
" 3	232	205	.....	.....	359
Total	763	749	1	1	876

Ward Ten

	Nelson C. Metcalf Non-p. M.	Farwell E. Thayer Non-p. M.	William Boyle	John Buckley	Blank
Precinct 1	274	266	1	.....	147
" 2	239	235	.....	1	153
" 3	105	96	.....	.....	439
Total	618	597	1	1	739

Ward Eleven

	Edward B. Hines Non-p. M	Timothy J. Horan, Dem.	John T Leahy Dem.	W. H. Barton	Blank
Precinct 1	253	165	155	.....	227
" 2	136	299	282	1	160
" 3	57	278	311	.....	86
Total	446	742	748	1	473

NUMBER OF REGISTERED MALE VOTERS BY WARDS, FROM 1897 TO 1911

Ward	November 1897	December 1897	November 1898	December 1898	November 1899	December 1899	November 1900	December 1900	November 1901	December 1901
1	2,362	2,397	2,264	2,333	2,257	2,302	2,492	2,554	2,491	2,566
2	3,797	3,854	3,847	3,949	3,973	4,039	4,492	4,530	4,364	4,461
3	1,885	1,934	2,004	2,060	1,950	2,039	2,081	2,093	1,885	1,939
4	3,000	3,036	2,877	2,979	2,740	2,861	3,003	3,099	2,980	3,083
5	1,686	1,716	1,703	1,776	1,680	1,750	2,007	2,091	2,198	2,244
Totals	12,730	12,937	12,695	13,097	12,600	12,991	14,075	14,367	13,918	14,293

Ward	November 1902	December 1902	November 1903	December 1903	November 1904	December 1904	November 1905	December 1905	November 1906	December 1906	November 1907	December 1907	November 1908	March 1909	November 1909	March 1910	November 1910	March 1911
1	878	999	980	1,036	1,007	1,044	995	1,037	977	978	903	926	921	947	862	908	831	873
2	912	1,008	1,011	1,108	1,112	1,152	1,038	1,066	989	997	924	940	950	973	923	951	889	920
3	1,608	1,700	1,690	1,797	1,840	1,929	1,797	1,834	1,467	1,495	1,460	1,560	1,521	1,584	1,509	1,597	1,428	1,530
4	1,519	1,621	1,621	1,763	1,726	1,809	1,680	1,777	1,320	1,370	1,349	1,494	1,357	1,437	1,362	1,461	1,369	1.455
5	1,564	1,622	1,645	1,708	1,715	1,764	1,750	1,825	1,792	1,802	1,718	1,756	1,722	1,776	1,696	1,734	1.738	1,797
6	1,567	1,747	1,749	1,930	1,931	2,024	1,973	2,084	1,948	1,962	1,859	1,935	1,868	1,933	1,821	1,889	1,780	1,864
7	1,753	1,899	1,834	1,938	1,946	2,052	1,941	2,038	1,958	1,993	1,869	1,937	1,907	1,967	1,787	1 850	1,785	1,834
8	1,336	1,510	1,540	1,650	1,682	1,723	1,625	1,713	1,627	1,631	1.597	1,655	1,613	1,638	1,493	1,576	1,474	1,510
9	1,334	1,428	1,455	1,520	1,507	1,549	1,505	1,547	1,542	1,555	1,515	1,557	1,565	1,607	1,548	1,596	1,596	1,617
10	1,099	1,142	1,132	1,157	1,173	1,199	1,195	1,223	1,184	1,193	1,172	1,202	1,196	1,231	1,195	1,248	1,255	1,273
11	1,384	1,463	1,494	1,560	1,586	1,629	1,636	1,696	1,607	1,628	1,537	1,570	1,493	1,535	1,493	1,534	1,542	1,569
Totals	14,954	16,139	16,151	17,167	17,225	17,874	17,135	17,840	16,411	16,604	15,903	16,532	16,113	16,628	15,689	16,344	15,687	16,242

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